

NEXUS

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PUBLISHED BY

NEXUS Magazine Pty Ltd, ABN 80 003 611 434

EDITOR

Duncan M. Roads

CO-EDITOR

Catherine Simons

ASSISTANT EDITOR/SUB-EDITOR

Ruth Parnell

EDITORS' ASSISTANT

Richard Giles

OFFICE ADMINISTRATOR

Jenny Hawke

CONTRIBUTORS THIS ISSUE

Project Censored and Sonoma State University;
Richard Becker, Colin Campbell and
Michael C. Ruppert; David Collier, BSc, DCH;
Leigh Lehane, BVSc, PhD, MSc; Robert A. Nelson;
Lloyd Pye; William F. Hamilton III

CARTOONS

Phil Somerville

COVER GRAPHIC

John Cook, jscook@ozzinet.net

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APN, Queensland, Australia

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HEAD OFFICE – All Correspondence

PO Box 30, Mapleton, Qld 4560, Australia
Tel: +61 (0)7 5442 9280; Fax: +61 (0)7 5442 9381

Email: editor@nexusmagazine.com

Website: <http://www.nexusmagazine.com>

NEW ZEALAND OFFICE

RD 2, Kaeo, Northland

Tel: +64 (0)9 405 1963; Fax: +64 (0)9 405 1964

Email: nexusnz@xtra.co.nz

USA OFFICE - 2940 E. Colfax, #131,

Denver CO 80206

Tel: +1 (303) 321 5006; Fax: +1 (720) 941 9352

Email: nexususa@earthlink.net

UK OFFICE - 55 Queens Rd, East Grinstead, West

Sussex, RH19 1BG. Tel: +44 (0)1342 322854;

Fax: +44 (0)1342 324574

Email: nexus@ukoffice.u-net.com

EUROPE OFFICE - PO Box 48, 1600 AA

Enkhuizen, The Netherlands.

e-mail address: nexus@fsf.nl

STATEMENT OF PURPOSE

NEXUS recognises that humanity is undergoing a massive transformation. With this in mind, NEXUS seeks to provide 'hard-to-get' information so as to assist people through these changes. NEXUS is not linked to any religious, philosophical or political ideology or organisation.

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Editorial

I wonder how many of us stop to consider how much life-changing history we are living through. I used to goggle when people told me they remember what it was like before cars, or before telephones, or before TV, etc. But soon I'll find myself telling youngsters how life was before computers, or before the Internet, etc. Considering the thousands or millions of years we have been around, we, as a species, have had a pretty remarkable technological spurt, just going back the last hundred or so years. I believe that several other significant historical developments are occurring right now, not least of which is in the field of genetic engineering and cloning. However, there are two developments in particular which have enormously far-reaching implications, and these are not getting anywhere near enough public debate.

First up is the VeriChip. I have been watching its progress for years. It was launched to the public for mass consumption this October. People are actually queuing up to get theirs right now. Just a quick, painless few minutes and a tiny chip is implanted, and *presto!*...total "security". Or is it? How long until it becomes compulsory? How long until people are penalised or discriminated against on the basis of their microchip status? How long until the microchip evolves into a total two-way interface between Big Brother computer systems and you?

The other significant historical development that we should be more aware of right now is America's grab for military control of space. It will not be long now before we have a weaponised satellite surveillance system over our heads, completely controlled by whoever is running the show in the USA. Remember all those far-out technologies and weapons you've ever read about in NEXUS: mind control frequencies, earthquake-generating weapons, weather-control devices, pulsed EM and RF waves? Throw in *Echelon*, PROMIS and all the other communications interception systems we don't know about; throw in state-of-the art AI, add in the total control offered by all our implanted microchips, and *presto!*...*real* total "security". Have you noticed an increase in the noise about identity theft lately? Suddenly, along with al-Qa'ida, it is at the root of all evil. Watch for proposals of a more secure and integrated ID system, with biometric identification and more, to be announced in major Western countries.

As we go to print, US President George W. Bush has just finished conquering America and is now aiming to conquer Iraq. Many are saying it is really just an excuse to obtain control of Iraqi and Saudi oil. To help us get a grip on the big oil picture, we have two revealing articles: one on the history of oil in the region, and an interview discussing exactly how much oil is left and where it is. As we go to print, all money is on a US invasion of Iraq in February 2003. With British, French and Russian oil companies warning Bush that he has to share the captured oil after he has seized Iraq, and given America's need for that oil, we predict a messy outcome for any such war.

Another interesting article this issue is on the link between traveller's deep-vein thrombosis (DVT) and infrasound exposure from engine vibrations in passenger cabins. Class-action lawsuits are already attracting headlines in UK and Australia, so this is timely information.

Darwinism gets another debunking this edition. Again, here are more reasons to doubt that life appeared suddenly out of a "warm pond" struck by lightning. There are definitely more questions here than answers.

Speaking of answers, we are doing our bit to help drought-affected people everywhere. Read the article on Dew Ponds, Air Wells and Fog Traps; then copy it and send it to farmers, environmental groups, government departments and anyone else you can think of. Every little bit helps!

We have a likely solution to our need for sweetness, for something to replace refined sugar or the aspartame-based artificial sweeteners. The answer may well be Xylitol, a natural extract of birch bark. It's certainly not a sweet-sounding name, but do yourself a favour and read about it.

I was saddened to learn of the recent death of microbiologist Dr Dan Burisch, who worked at Area 51/S4. Dan recently turned whistleblower as a matter of conscience, because there are things of global significance that he felt should be revealed to the public despite US national security regulations. I had been watching his material start to leak out onto the Net, and it ranks right up there with some of the wildest stuff we have ever put in NEXUS. As usual, I don't feel that the articles give the full picture due justice, so do take the time to follow up the Burisch material on the Net. I hear that a book is being put together on the material, so stay tuned.

The subject of "Planet X", or "Enigma", has been coming up a lot lately. We intend to publish an article telling all we know, and some of what we suspect, in relation to whether or not a planetoid/brown-dwarf/asteroid is due to pass close to Earth some time between May and November 2003. There are also rumours of a magnetic pole shift of the Earth in 2003. If there's anyone out there with information to leak on these matters, *now* is the time to send it in.

And a final reminder about the NEXUS Conference we're holding in Amsterdam in late March 2003: great speakers, great location and a memorable gathering. See the advert inside this issue, or visit the www.nexusconference.com website. I do hope to meet many of you there!

Duncan

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Letters to the Editor ...

Canadian Genocide Cover-up

Hi Duncan: I wonder if you have been kept abreast of developments regarding Rev. Kevin Annett in BC, Canada? If not, and for other readers concerned about the acts of the Canadian government and certain Native individuals and Canadian judiciary, then I would advise you to revisit the website at <http://canadiangenocide.nativeweb.org/> and check out an on-line petition at <http://www.petitiononline.com/genocid1/petition.html>.

Kevin Annett needs your help. He is on the verge of being arrested by people manipulating the legal system whilst protecting themselves and others in covering up their part in this ongoing cover-up.

It was your magazine that helped to bring these atrocities to the readers' notice. Please let them know it's not over yet and that much more needs to be done to bring this subject to the general public's notice in all countries where your great magazine is in circulation.

We have just been notified that Rev. Kevin Annett's book, *Love and Death in the Valley*, is now available to buy. It is the story of how Rev. Annett stumbled over the evidence of the Genocide of Native people on Canada's west coast while he worked as a United Church minister in Port Alberni—a discovery which cost him everything, but which has changed the face of Canadian society.

Rev. Annett can be contacted directly in Canada on (604) 466 1804 or by email at kevinannett@yahoo.ca.

Bob Higgins

Undersea Volcanism

Although one or two of the accompanying graphs are not entirely convincing, the article on undersea volcanism (NEXUS 9/05) may have identified a significant cause of global warming and climate change that has been overlooked to date.

Because this is a cause that we can do nothing about, some

people, especially the worst of the "Big Business" polluters, would argue that this makes it pointless to try to minimise our impact on the environment; but I believe that if undersea volcanism is a contributing factor, it makes it even more imperative that we do everything we can to reduce the impact of our activities on the environment.

Peter Schaper, Biggenden, Queensland, Australia

[Dear Peter: Even though I believe that climate change is natural and not man-made, I do not consider this any justification to pollute the ecosystem. Ed.]

Corporate Communism

In his article, "A History of Corporate Rule and Popular Protest" [9/06], Richard Heinberg implies that Socialism and Communism are the innocent victims of corporate aggression and slander. Nothing could be farther from the truth. They are all roots of the same tree.

I defy Mr Heinberg to tell me a single substantial difference between a socialist/communist state and a corporate state. Communism is merely a shortcut means of achieving a corporate state, in which one megacorporation owns and controls everything, including the "government".

Oh, you say, but a corporation has stockholders. What legal rights would the stockholders have if the corporation owned and controlled the government? The only rights would be in the hands of the directors of the corporation.

As evidence of the fact that communism is a means of creating a corporate state under a different name, note the vast amount of support given to the Bolsheviks, to the Soviet Union and to communism and other leftist causes in the US by various wealthy individuals and megacorporations and by their controlled news media.

Mr Heinberg cites the fact that after they took over, the Nazi Party persecuted the socialists and communists as evidence that the

Nazis were socialists in name only. This is a well-known tactic of communist/socialist revolutions. After they take over, they do a wholesale house-cleaning of their own members. They know that most of their members are revolutionaries, and the last thing they want is someone revolting against them!

Mr Heinberg is right about one thing: it's all about *power!*

Sincerely,

John M., Tampa, Florida, USA

George W. Bush's IQ

Hey guys: I've been reading NEXUS for years and have found very little objectionable material, but your reprint of an article questioning the intelligence of G. W. Bush in your last issue was in poor taste [see 9/05].

I'm a libertarian, and did not vote for Bush, so don't think I'm defending him. As you guys know, the American government is only a front for a shadow government, and Bush's IQ has absolutely nothing to do with anything. He's just a figurehead installed by the OWG [One World Government].

By the way, have you ever noticed how he can make a beautiful and coherent speech one day, and the next day he can't complete a whole sentence? He obviously smokes a little "happy plant" now and then. You guys should do the same.

Michael W. Peck, USA

[Dear Michael: The whole point of the item showing that Bush is an imbecile was to PROVE that someone else really is in charge. Nobody that stupid could possibly run a country. And the ONLY reason that he makes a "beautiful and coherent speech" one day and not the next is because that's when he's reading from the teleprompter what someone else has written for him. Ed.]

Qualification Fraud

Hi Duncan: Many thanks for producing such a wonderful magazine. I have been working for a university in Japan for a number of years and, as part of my

general duties, I am one of those responsible for the selection and placement of new staff members within our own foreign faculty.

In my personal experience I have noticed that there has been an alarming increase in what can only be described as serious "qualification fraud". In the 1980s this was mostly concerned with first degrees from dubious institutes of higher education, but more recently the trend is towards post-graduate degrees and even doctorates, and the situation is getting worse year on year.

If any of your readers have free email accounts (such as Hotmail), then I am sure that they will be all too familiar with the spam mail offering Bachelors, Masters and PhD degrees for little or no cost based on, er, "life experience".

Given the importance that NEXUS quite rightly places on openness and honesty, I would much prefer to see full disclosure of qualifications from those contributors who wish to cite them.

For me, John Smith, BA History (Bristol), MSc Political Science (Warwick), PhD (Oxon.) is much more reassuring than John Smith BA, MSc, PhD. I know that some articles include these details as part of their endnotes, but many do not. Letter writers, too, often seem reluctant to offer full disclosure...

A final request: any plans for NEXUS to become a monthly publication?

Kind regards,

Sean Maddalena, University of Ashiya, Ashiya, Japan

[Dear Sean: Thanks for your comments; we'll consider implementing this system in future issues. And at this stage, NEXUS will remain bi-monthly. Ed.]

Mysteries of Organ Donation

Deep bits and pieces in women's magazines about people taking on aspects of the donor's personality following a transplant, and I've seen another article, memorably titled, "Sex saved my life!", where the author said that she was able to receive a kidney donated by her

... more Letters to the Editor

NB: Please keep letters to approx. 150 to 250 words in length. Ed.

husband because her body was used to dealing with his genetic material, although they were not compatible. (Yeah, I know you can't believe everything you read in those sorts of mags.)

These articles have led me to wonder: (a) if transplant recipients reject organs because they and the donor have incompatible personalities, and (b) if it would be possible to "train" people who are waiting for a transplant to accept the new organ. (Clearly, there are major difficulties where the donor's identity is not known until an organ becomes available.) Has anyone done any research on these issues?

If someone manages to get pigs to grow human organs, the idea of people taking on pig personalities is quite grotesque. Still, in the case of economic rationalists, it would result in an improvement.

Erika Ferguson, South Townsville, Queensland, Australia

Mad Cow Disease Theory

Dear Duncan: It has been proposed by Purdy and others that mad cow disease (MCD, or BSE) is caused by excess manganese in foods given to cows or, alternatively, that MCD or Prion disease is caused by insecticide usage.

Let's look at an experiment that can quickly disprove these ideas. A silver wire was inserted into the brain of a woman with undiagnosed prion disease. The silver wire was then removed and thoroughly medically washed, scrubbed and completely sterilised by hospital staff. If there was any insecticide or manganese on the wire, it would have been removed by the above procedure.

That silver wire was then placed into the brain of a healthy person, then removed and washed, scrubbed and sterilised again. This healthy person later developed prion disease. After the above sterilisation and thorough cleaning, the wire was later placed into the brain of a second healthy person. This second healthy person also developed prion disease. No insecticide or manganese parti-

cles could have possibly been present on this medically cleaned and sterilised silver wire. Yet two people coming into contact with this silver wire developed the prion disease vCJD.

Something was on that silver wire, but it could not have been manganese or insecticide or bits of contaminated meat protein cells, as the wire was cleaned as clean as our medical science can clean something, and a lot cleaner than the dishes in your sink. The silver wire was cleaned using multiple methods, not just simply washed.

So how did that silver wire transmit prion disease? Answer: we simply do not know. It would be silly to say we do know or to suggest insecticide or manganese were on the wire.

By the way, if one inserts a manganese wire into an animal's brain, the animal does not develop prion disease. Also, control rats in a laboratory, fed the same diets as test rats and not exposed to any insecticide or manganese, do not develop prion disease, while test rats do develop prion disease if the tiniest amount of MCD-infected material is placed in their brains. There need be no manganese or insecticide in that infected material for the prion disease to be transmitted. In other words, controlled experiments with rats, which exclude manganese and insecticide, show that prion disease is still transmitted in the absence of these two proposed causes of prion disease.

Blood-sucking insects have been shown to transmit prion disease, yet Purdy looks at the insecticide used on those insects, without ever looking at the insects themselves as the mode of transmission. Dry wood or drought do not cause fire: a spark or flame or very high temperature causes fire. Dry fuel will then fuel that fire, but not cause the fire. Similarly, high soil manganese levels may fuel prion disease, but will never cause it. Manganese does replace copper in prion disease, so supplying more manganese might make the disease progress more quickly.

But remember, there was no manganese on the above silver wire that successfully transmitted prion disease to two people. For those who do not know, prion disease existed long before any insecticides were invented. That would seem to quickly rule out insecticide as a cause of prion disease.

Peter Olson, moonbeam@earthling.net

Self-Aware Machines

I read with extreme fascination the interview with David Adair by Robert M. Stanley in NEXUS 9/05. His description of the strange ET device at Area 51 as well as his own rocket engine and his genius were spellbinding. What was of greatest interest to me was the apparent similarity of the alien device to a combination machine and life-form.

I have long believed that a computer-controlled device could be taken over by a spiritual being and could function as a life-form despite the lack of reproductive capability. All it would take is for the machine to have sensation in order to be attractive enough for a spiritual being to "interiorise" into it and control it. Senses equal self-awareness. If the machine can see, feel, hear, sense its own functions, etc., then it has the capability of becoming self-aware. I suspect that this will be the next development of science.

Adair's statement that the alien engine appeared to have been grown rather than manufactured may have hit the nail on the head. Our own bodies are extremely complex devices consisting of many different chemical compounds. So are trees. Why couldn't extremely advanced genetic engineering produce a spacecraft engine or a complete spacecraft?

I wish I could be at Area 51 to visit this alien "machine" and communicate with it. I feel a certain amount of sympathy with it, too, since it is isolated there with hostile people who will never begin to understand it or communicate with it.

John G. Marson, USA

Alien Intervention Theory

Dear Duncan: John Anthony West's letter in response to Lloyd Pye's theory of ET engineering of domestic plants and animals, including our species, makes some astute points about the principle of Intelligent Design in evolutionary development [9/05].

But I believe West is too dismissive of the ET hypothesis, as Pye is of the former argument. The two ideas are not mutually exclusive, and to get trapped in the either/or box does nothing to advance our comprehension of the vast sweep of evolution.

In 1986, Stuart Litvak and I wrote a definitive book on the Intelligent Design theory of evolution, entitled *Toward a New Brain: Evolution and the Human Mind* (originally published by Prentice-Hall and available via amazon.com), which dispatched both Creationism and neo-Darwinism.

In it we laid out the solid foundation of a teleological model of evolution, based on the dynamic of consciousness itself. Although we did not include a possible ET factor, this would not in any way detract from the model; in fact it could reinforce it. Of course, the lack of "empirical evidence" renders it "unscientific" in this context. And now the neo-Darwinists are accusing the ID advocates of trying to get God in the debate through the back door!

Ultimately, as West indicates, "proof" of phenomena originating from a higher dimension cannot be readily accessed, if at all, by consciousness from a lower dimension. It's the situation of the ants and the writing pen: the ants came across mysterious markings on paper, were baffled by the mystery until one day they saw the tip of the pen making contact with the paper. Although they had no conception of human beings, some of the ants thought they were very close to solving the mystery...

A. Wayne Senzee, Phoenix, Arizona, USA

PRE-EMPTIVE STRIKES AGAINST TERRORISTS?

One way to invigorate US intelligence would be to "develop an entirely new capability to proactively, pre-emptively evoke responses from adversary/terrorist groups," according to the Defense Science Board, a Pentagon advisory group. Such an approach would "improve information collection by stimulating reactions" from the target.

In what may well be the largest expansion of covert action by the armed forces since the Vietnam War era, the Bush administration has turned to what the Pentagon calls the "black world" to press the "War on Terrorism" and weapons of mass destruction.

The Defense Department is building up an elite secret army with resources stretching across the full spectrum of covert capabilities. New organisations are being created. The missions of existing units are being revised. Spy planes and ships are being assigned to new missions in anti-terror and monitoring of the "Axis of Evil".

Even with all this, the Pentagon wants to expand covert capabilities. Donald Rumsfeld's influential board recommends creation of a super-Intelligence Support Activity, an organisation it dubs the Proactive, Pre-emptive Operations Group, (P2OG), to bring together CIA and military covert action, information warfare,



intelligence, and cover and deception.

Among other things, this body would launch secret operations aimed at "stimulating reactions" among terrorists and states possessing weapons of mass destruction—that is, for instance, prodding terrorist cells into action and exposing themselves to "quick-response" attacks by US forces.

Such tactics, the briefing paper declares, would hold "states/sub-state actors accountable" and "signal to harboring states that their sovereignty will be at risk".

(Sources: LA Times, October 27, 2002; Secrecy News, October 28, 2002)

UK PRESS GAGGED OVER MI5'S £100,000 BIN LADEN PAYOFF

On the evening of October 7, British Prime Minister Tony Blair ordered a D-Notice on the UK media's reporting of government officials signing court gag orders. This regards the case of former MI5 officer David Shayler, who claims evidence to prove MI6 gave £100,000 to Osama bin Laden and al-Qa'ida, sent arms to Iraq and had prior knowledge of several terrorist attacks on London in the 1990s.

The original articles stated that top Labour MPs had signed gag orders whereby, upon mention of this evidence in court, media immediately have to leave the trial.

Newspapers all over the country, including the *Guardian*, the *London Evening Standard* and the *Scotsman*, either completely removed or amended their articles.

Shayler, 36, faces two charges under section one of the Official Secrets Act, for disclosing documents and information about the work of MI5, and another under section four, for disclosing information about telephone taps.

He has failed so far to win his argument that his revelations were in the public interest.

"I aim to persist in my argument that the Official Secrets Act as it currently stands is totally incompatible with the Human Rights Act," he told a newspaper.

Some of the hearing is expected to be taken up by an application by newspapers objecting to plans to hold parts of the trial in secret.

The prosecution applied for hearings to be held in camera after its concerns that Shayler will make fresh allegations to the jury to back up his public-interest defence.

Shayler's decision to defend himself, against the advice of his legal team, for part of the trial was prompted by the belief that he will be freer to argue his case than his barrister, Geoffrey Robertson, QC, whose hands are tied by earlier court rulings.

For an overview of the background of the Shayler case, visit David Shayler's official website, <http://www.Shayler.com>. (Source: By Paul Joseph Watson, October 9, 2002, via http://www.propagandamatrix.com/shayler_gate.html)



WISCONSIN MIRACLE PROVES DIET AFFECTS BEHAVIOUR

A quiet revolution has begun in Appleton, Wisconsin, USA. It started at the Central Alternative High School. The children now behave. The hallways aren't frantic. Even the teachers are happy.

The school used to be out of control. Kids packed weapons. Discipline problems swamped the principal's office. But not since 1997.

In 1997, a private group called Natural Ovens, of Manitowoc, Wisconsin, underwrote a Wellness and Nutrition Program at the school. A natural bakery founded by Paul Stitt, a food biochemist, and Barbara Stitt, who has a PhD in nutrition, Natural Ovens contributed over US\$100,000 for the construction of a kitchen, provided two cooks and paid excess food bills at the high school. Teachers as well as students committed themselves to the program. And before implementing it, the staff removed all soda and junk-food vending machines from the buildings.

The menu consists of fresh fruits and vegetables, whole grain breads, homemade soups, stews and entrées. One important item that is available to the students and teachers each day is the "energy drink", consisting of fruit juice, whole fruit and ground flax "energy mix". The flax contains omega-3 fatty acids that are known to provide important nutrients for brain functioning.

The behaviour, stamina, attitude and health of the students and staff have improved for the better. Staff members report improved attention, improvements in attendance and cooperation among students and willingness to tackle complex concepts. Students report that they are also incorporating better nutrition outside of school. Grades are up, truancy is no longer a problem, arguments are rare, and teachers are able to spend their time teaching.

The program, now in its fourth year, has been an overwhelming success and is being adopted in other Wisconsin schools.

Principal LuAnn Coenen, who files annual reports with the

state of Wisconsin, has turned in some staggering figures since 1997. Drop-outs? Students expelled? Students discovered to be using drugs? Carrying weapons? Committing suicide? Every category has come up zero, every year.

(Sources: Pfeiffer Pfacts, Illinois, USA, Summer 2002, <http://www.hriptc.org>; The Moore Report, <http://www.moorefoundation.com/newsletter4.html>; Stratia Wire, October 14, 2002, <http://www.stratiawire.com>)

US MILITARY'S SPACE DOMINANCE STRATEGY

The US Department of Defense (DoD) is drafting a space control strategy, with a sweeping review looking outward over the next 20 years. Concurrently, DoD is developing a national security space plan, spelling out broad objectives and priorities for a spectrum of space-based programs. Once put in place, the space control plan would assure freedom of action in space for America as well as her allies.

Central to the space-control doctrine is denying an adversary's action in Earth orbit. Counter-strike skills could come through surveillance, protection of satellites, prevention of any enemy attack, as well as knocking out a hostile spacecraft.

In a September 23 report, the General Accounting Office (GAO) notes that the US Air Force is the primary procurer and operator of space systems. That military branch is expected to spend about 86 per cent of some US\$165 billion dedicated for space in fiscal years 2002 through 2007—a total far larger than the Navy, Army and other Defense agencies.

Some space control systems are classified. Other spacecraft networks or systems under development include a "space-based

surveillance system" and a "rapid attack identification and reporting system".

The GAO study explains that the US Air Force is the future "executive agent for space". As such, the Air Force is working towards cutting bureaucratic red tape. DoD anticipates that the new time-squeezing steps can cut key decision-making milestones from about 8 to 12 months to about 8 to 12 weeks.

(Source: Space News, USA, October 15, 2002, http://www.space.com/news/space_control_021015.html)

MOBILE PHONE RADAR SYSTEM WILL TRACK OUR EVERY MOVE

Secret radar technology research that will allow the biggest-ever extension of "Big Brother"-style surveillance in the UK is being funded by the government.

The radical new system, which has outraged civil liberties groups, uses mobile phone masts to allow security authorities to watch vehicles and individuals "in real time" almost anywhere in Britain.

The technology "sees" the shapes made when radio waves emitted by mobile phone masts meet an obstruction. Signals bounced back by immobile objects, such as walls or trees, are filtered out by the receiver. This allows anything moving, such as cars or people, to be tracked. Previously, radar needed massive fixed equipment to work and transmissions from mobile phone masts were thought too weak to be useful.

The system works wherever a mobile phone can pick up a signal. By using receivers attached to mobile phone masts, users of the new technology could focus in on areas hundreds of miles away and bring up a display showing any moving vehicles and people.

Somerille



NUCLEAR PLANT AHEAD



WAR ON TERRORISM



INSURANCE IN PROGRESS

An individual with one type of receiver, a portable unit little bigger than a laptop computer, could even use it as a "personal radar" covering the area around the user. Researchers are working to give the new equipment "X-ray vision"—the capability to "see" through walls and look into people's homes.

UK Ministry of Defence officials are hoping to introduce the system as soon as resources allow. Police and security services are known to be interested in a variety of possible surveillance applications. The researchers themselves say the system, known as *Celldar*, is aimed at anti-terrorism defence, security and road traffic management.

(Source: Observer, London, October 14, 2002, <http://www.guardian.co.uk/mobile/article/0,2763,811034,00.html>)

BRAIN TUMOUR CAUSES PAEDOPHILIA TENDENCIES

The sudden and uncontrollable paedophilia tendencies exhibited by a 40-year-old man were caused by an egg-sized brain tumour, his doctors recently told a scientific conference. And once the tumour had been removed, his sex-obsession disappeared. The cancer was located in the right lobe of the orbitofrontal cortex, which is known to be tied to judgement, impulse control and social behaviour.

Neurologists Russell Swerdlow and Jeffrey Burns, of the University of Virginia at Charlottesville, believe this is the first reported case linking damage to that region

of the brain with paedophilia.

"He wasn't faking," says Burns. "But if someone argues that every paedophile needs an MRI, the difference in this case was that the patient had a normal history before he acquired the problem. Most paedophiles develop problems early on in life."

The man, a schoolteacher, began secretly visiting child pornography websites and soliciting prostitutes at massage parlours—activities he had not engaged in previously. When the man's wife found out, he was legally evicted from his house, found guilty of child molestation and medicated for paedophilia.

After he was remanded to psychiatric care, he complained of balance problems. An MRI scan revealed an egg-sized brain tumour, but his behaviour returned to normal after the tumour was removed.

However, in October 2001, he started complaining of headaches and secretly began collecting pornography once more. Again, after an MRI scan revealed tumour regrowth and it was removed, the behaviour disappeared.

Swerdlow suggests that physicians who see personality changes coupled with an inability to write or copy pictures may now want to consider brain disease as a possible cause.

Behavioural neurologist David Rosenfield, of the Baylor College of Medicine in Houston, says: "They have an interesting patient. I would wonder whether the tumour caused hormonal changes."

Rosenfield thinks further research should investigate whether other problems with the orbitofrontal cortex can be linked to paedophilia.

Burns and Swerdlow presented their findings at the annual meeting of the American Neurological Association in New York.

(Source: BBC News, October 21, 2002, <http://news.bbc.co.uk>)

VERICHIP LAUNCHED IN "GET CHIPPED" PROMOTION

Applied Digital Solutions, Inc., an advanced technology development company, has launched a national "Get Chipped" promotion for VeriChip, a subdermal personal verification microchip. The first 100,000 registrants and all qualified ADSX shareholders are eligible for a special introductory saving of \$50 at the time of "chipping".

The announcement came two days after a surprise ruling by the US Food and Drug Administration (FDA) that VeriChip is not a regulated medical device "for security, financial, and personal identification/safety applications".

VeriChip is able to function as a stand-alone, tamper-proof personal verification technology, or it can operate in conjunction with other security technologies such as standard ID badges and advanced biometric devices (e.g., retina scanners, thumb-print readers or face-recognition devices). VeriChip can be used as a means for secure access to a range of consumer products such as PCs, laptops, cars, cellphones and even to homes and apartments. VeriChip is also expected to provide a solution to the problem of fraudulent access to bank accounts and to the growing crisis of identity theft.

VeriChip is a miniaturised radio-frequency identification device (RFID) that can be used in a variety of security, financial, emergency identification and health-care applications. About the size of a grain of rice, each VeriChip product contains a unique verification number and will be available in several formats, some of which will be insertable under the skin.

The verification number is captured by briefly passing a proprietary scanner over the VeriChip. A small amount of radio-frequency energy passes from the scanner, energising the dormant VeriChip, which then emits a radio-frequency signal transmitting the verification number.



"Getting chipped" is a simple outpatient procedure that lasts just a few minutes and involves only local anaesthetic and insertion of the chip.

(Source: ADS press release, October 24, 2002, <http://www.adxs.com>)

RESISTANCE TO PESTICIDES GOES GLOBAL IN A FLASH

A single genetic mutation that protects fruit flies from the lethal effects of the insecticide DDT has spread around the world, almost instantly.

It is generally known that insects can spread genetic traits very rapidly, but no one has spotted a global takeover like this before. The discovery echoes similar research on the mosquito that carries the malaria parasite.

Scientists recently found that a DDT resistance gene in *Anopheles gambiae* had spread right up and down the west coast of tropical Africa.

Widespread use of DDT to control mosquitoes and crop pests began in 1945. The pesticide also killed off fruit flies (*Drosophila melanogaster*), so the tiny insects had to adapt or die.

And adapt they did. Richard French-Constant from Bath University and his team analysed 75 lab populations of fruit flies originally collected around the world in the 1960s. Of those, 28 were DDT-resistant, including flies from every continent except Antarctica.

Surprisingly, every resistant fly had precisely the same genetic change: the addition of a "jumping gene"—a short sequence of DNA that can insert itself into new locations in the genome.

It's very surprising that a single version of the gene is responsible for all DDT resistance, says Charles Godfray, an entomologist at Imperial College in London.

He is also struck by the fact that the mutation has stuck around even in laboratory strains that have never encountered DDT.

(Source: New Scientist, vol. 176, issue no. 2363, October 5, 2002)

Our thanks to readers from around the globe who email and post snippets and articles of interest.

Keep it up, please!

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Address: NEXUS, PO Box 30, Mapleton Qld 4560, Australia

EU LAWS WILL RESTRICT ACCESS TO HEALTH SUPPLEMENTS IN UK

Millions of Britons take herbal vitamin and mineral supplements, either as a preventive measure or to treat specific ailments. But they may not be able to for much longer...

If you're one of those who find such remedies useful, however, you'd better start stockpiling now. A raft of EU legislation looks set to nip the natural medicine market in the bud. Soon, that popular vitamin C, echinacea and zinc combination may not be allowed on the shelves. A shadow looms large over the alternative health sector.

Estimates of the impact of this new legislation vary, but hundreds of vitamin and mineral supplements could be banned outright, while an as-yet-incalculable number of common herbal remedies will disappear unless consumers challenge it. The National Association of Health Food Stores claims that as many as three-quarters of its members could go out of business. The writing is on the wall for small British supplement companies, which will be forced to reformulate entire ranges and invest massively in applying for new product licences.

The attack comes from four different pieces of legislation, one of which is already in force, another approved in principle. All are couched in the now familiar EU language of consumer safety and free trade. Currently, the UK, the Netherlands and Ireland have a far more permissive attitude towards supplements than other member states, and make available a wider range of higher-dose remedies. This approach is in line with those in the USA, Australia, New Zealand and Canada. But those days are numbered.

The idea behind the new regulations is that, irrespective of whether you are a healthy Cretan living on fish, multiple fruit and vegetables and monounsaturated olive oil, or a typically sun-starved Brit existing on nutritionally impoverished processed food, you should have the same range and strength of supplements at your disposal.

Attack number one comes in the form of the Food Supplements Directive, which will set maximum levels for vitamins and minerals. Currently, consumers in the UK can buy high-strength vitamins in dosages that are way above what's known as the "recommended daily allowance" (RDA). In most other European countries, a much more restrictive range of vitamins and minerals, based on the RDA, is available. A likely EU consensus might set limits at only two or three times the RDA, representing a liberalisation for most European countries, but decimating the choice available to the British consumer.

The second attack takes the form of the Traditional Herbal Medicinal Products Directive, which says that herbal remedies can only be licensed if they can be shown to be safe and produced to high standards. This means that herbal remedies will be licensed in the same way as drugs, often costing millions. Furthermore, to get a licence, a specific product must have been on the market for 30 years, 15 of which must have been in Europe.

There's a third prong to the attack, in the form of the Novel Foods Directive, which is already in force. This was originally designed to control genetically modified foods and new, so-called "functional" foods, such as fish oil-enriched bread, but is now being applied to absolutely everything that is sold under food law. Any food product (which includes supplements) that was not on the EU market before May 15, 1997, can only be granted approval after submission of a dossier containing huge amounts of technical and safety data. So far, a herbal sweetener and an immune system-boosting tonic have already been forced off the shelves as a result, and next in the line of fire is MSM, an increasingly popular organic sulphur that has been found to be effective in the treatment of joint problems. Even more worrying is that there is no appeals process under this directive.

The final attack seems on the surface to be an innocuous tidying-up of the EU Medicines Directive. But, in fact, it will mean that anything with a physiological action can be reclassified as a medicine—and under EU definitions, that means that any product sold in a health store, even herbal tea, could be deemed to be a medicine, while items such as coffee and grapefruit juice (which also have proven physiological effects, but which are sold in food shops) will not be affected. The new EU laws will say that a product must be either one or the other.

(Source: By Joanna Blythman, The Guardian, London, September 14, 2002, <http://www.guardian.co.uk/weekend/story/0,3605,790733,00.html>)

PROJECT CENSORED

THE MOST UNDERCOVERED NEWS IN AMERICA

The Project Censored voting team has selected the top news stories that deserved to receive major coverage in the US corporate media last year, but were significantly underreported.

The Project Censored team from Sonoma State University, California, under the directorship of Dr Peter Phillips, has released its list of the Top Censored Stories of 2001 and 2002. Media students, faculty staff and community experts were involved in the selection, screening and evaluation process. Project Censored's top 25 stories as well as the runners-up are summarised below in edited form, extracted from the book *Censored 2003* (Seven Stories Press; see review this issue). — Editor

1: FCC Moves to Privatisise Airwaves

For almost 70 years, the Federal Communications Commission (FCC) has administered and regulated the broadcast spectrum as an electronic "commons" on behalf of the American people. For a fee, the FCC issues licences to broadcasters that allow them to use, but not own, one or more specific radio or TV frequencies. Thus, the public has retained the ability to regulate, as well as influence, access to broadcast communications.

Several years ago, the Progress and Freedom Foundation, in its report, "The Telecom Revolution: An American Opportunity", recommended a complete privatisation of the radio frequencies, whereby broadcasters with existing licences would eventually gain complete ownership of their respective frequencies. They could thereafter develop them in markets of their choosing, or sell and trade them to other companies. The few non-allocated bands of the radiofrequency spectrum would be sold off, as electronic real estate, to the highest bidders. With nothing then to regulate, the FCC would eventually be abolished. The reasoning behind this radical plan was that government control of the airwaves has led to inefficiencies. In private hands, the frequencies would be exchanged in the marketplace, and the forces of free-market supply and demand would foster the most creative (and, of course, most profitable) use of these electronic "properties".

The course of wireless broadcasting is approaching an unprecedented and critical crossroads. The path taken by the United States, and by the other industrialised nations that may follow its lead, will profoundly influence the ability of the citizenry of each country to control the media democratically.

(Sources: *The Guardian*, April 28, 2001; *Mother Jones*, September/October 2001)

2: New Trade Treaty Seeks to Privatisise Global Social Services

A global trade agreement now being negotiated will seek to privatise nearly every government-provided public service and allow transnational corporations to run them for profit. The General Agreement on Trade in Services (GATS) is a proposed free-trade agreement that will attempt to liberalise/dismantle barriers that protect government-provided social services. These are social services bestowed by the government in the name of public welfare. The GATS was established in 1994, at the conclusion of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT). In 1995, the GATS agreement was adopted by the newly created World Trade Organization (WTO).

Corporations plan to use the GATS to profit from the privatisation of educational systems, health care systems, child care, energy and municipal water services, postal services, libraries, museums and public transportation. If the GATS is finalised, it will lock in a privatised, for-profit model for the global economy. GATS/WTO would make it illegal for a government with privatised services ever to return to a publicly owned, non-profit model. Any government that disobeys these WTO rulings will face sanctions. What used to be areas of common heritage like seed banks, air and water supplies, health care, and education will be commodified, privatised and sold to the highest bidder on the open

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Sonoma State University
1801 East Cotati Avenue
Rohnert Park, CA 94928-3609, USA
Telephone: +1 (707) 664 2500
Email: censored@sonoma.edu
Website:
<http://www.projectcensored.org>

market. People who cannot afford these privatised services will be left out.

The WTO has hired a private company, the Global Division for Transnational Education, to document policies that "discriminate against foreign education providers". The results of this "study" will be used to pressure countries with public education systems to relinquish them to the global, privatised marketplace.

The futures of accountability for public services and of sovereign law are at stake with the GATS decision. Foreign corporations will have the right to establish themselves in any GATS/WTO-controlled country and compete against non-profit or government institutions, such as schools and hospitals, for public funds.

The current round of GATS negotiations has identified three main priorities for future free-trade principles:

1) GATS officials are pushing for "National Treatment" to be applied across the board. "National Treatment" would forbid governments from favouring their domestic companies over foreign-based companies. This will create an expansion of megacorporate access to domestic markets and further diminish democratic accountability.

2) GATS officials are seeking to place restrictions on domestic regulations. This would limit a government's ability to enact environmental, health and other regulations and laws that hinder "free trade".

3) Negotiators are attempting to develop the expansion of "Commercial Presence" rules. These rules allow all investors in one GATS-controlled country to establish a presence in any other GATS country. The investor will not only be allowed to compete against private suppliers for business, but will also be allowed to compete against publicly funded institutions and services for public funds.

(Sources: The Financial Times, London, October 19, 2000; The Ecologist, February 2001; The Gazette, Montreal, June 15, 2001; The Weekend Australian, August 25, 2001; The Herald, Glasgow, February 27, 2002; Toronto Star, March 3, 2002)

3: US Policies in Colombia Support Mass Murder

Over the past two years, Colombia has been Washington's third-largest recipient of foreign aid, behind only Israel and Egypt. In July 2000, the US Congress approved a \$1.3 billion war package for Colombia to support President Pastrana's "Plan Colombia". Plan Colombia is a \$7.5 billion counternarcotics initiative. In addition to this financial support, the US also trains the Colombian military.

Throughout these past two years, Colombian citizens have been the victims of human rights atrocities committed by the US-trained Colombian military and linked paramilitaries. Trade unionists and human rights activists face murder, torture and harassment. It is reported that Latin America remains the most dangerous place in the world for trade unionists; since 1986, some 4,000 unionists have been murdered in Colombia.

Another problem resulting from the Colombian "drug war" has been the health consequences of US-sponsored aerial fumigation. Since January 2001, Colombian aircraft have been spraying toxic herbicides over Colombian fields in order to kill opium poppy and coca plants. These sprayings are killing food crops that indigenous Colombians depend on for survival, as well as harming their

health. The sprayings have killed fish and livestock, and have contaminated water supplies.

US military aid is not improving conditions for the people of Colombia, but rather supporting a war against its citizens and those who are fighting for social justice. According to Jesse Isbell, an American member of the international steelworker delegation, who recently visited Columbia: "The US says one thing to the American public, when in reality it is [doing] something totally different. Our government portrays this as a drug war against cocaine, but all we are doing is keeping an ineffective government in power."

(Sources: Rachel's Environment & Health News, December 7, 2000; Steelabor, May/June 2001; Counterpunch, July 1-15, 2001; Asheville Global Report, October 4, 2001)

4: Bush Administration Hampered FBI Investigation into Bin Laden Family Before 9-11

A French book, *Bin Laden: La Vérité Interdite* (Bin Laden: The Forbidden Truth), claims that the Bush Administration halted investigations into terrorist activities related to the bin

Laden family and began planning for a war against Afghanistan before the events of September 11, 2001.

The authors, Jean-Charles Brisard and Guillaume Dasquié, are French intelligence analysts. Dasquié, an investigative reporter, publishes *Intelligence Online*, a respected newsletter on economics and diplomacy. Brisard worked for French secret services and in 1997 wrote a report on the al-Qa'ida network.

In 1996, high-placed intelligence sources in Washington told the *Guardian*: "There were always con-

straints on investigating the Saudis."

The authors allege that under the influence of US oil companies, George W. Bush and his administration initially halted investigations into terrorism, while bargaining with the Taliban to deliver Osama bin Laden in exchange for economic aid and political recognition. The book goes on to reveal that former FBI Deputy Director John O'Neill resigned in July 2001 in protest over the obstruction of terrorist investigations.

The BBC reiterated a well-known claim, made by one of George W. Bush's former business partners, that Bush made his first million dollars 20 years ago from a company financed by Osama's elder brother, Salem. It has also been revealed that both the Bush family and the bin Ladens had lucrative stakes in The Carlyle Group, a private investment firm that has grown to be one of the largest investors in US defence and communications contracts.

Brisard and Dasquié contend that the government's main objective in Afghanistan was to unite the Taliban regime in order to gain access to the oil and gas reserves in Central Asia. They report that the Bush Administration began negotiations with the Taliban directly after coming into power, and representatives met several times in Washington, Islamabad and Berlin. There were also claims that the last meeting between the United States and Taliban representatives took place only five weeks before the attacks in New York and Washington.

Long before the 9-11 attack, the United States had decided to invade Afghanistan in the interest of oil. In February 1998, at the hearing before a subgroup of the Committee on International

Bush made his first million dollars 20 years ago from a company financed by Osama's elder brother, Salem.

Relations, Congress discussed ways to deal with Afghanistan to make way for an oil pipeline.

Jane's Defence Newsletter reported in March 2001 that an invasion of Afghanistan was being planned. The *Times of India* reported that in June 2001, the US government told India that there would be an invasion of Afghanistan in October of that year. In July 2001, George Arney, with the BBC, also reported the planned invasion.

Sources: The Guardian, London, November 7, 2001; The Times of India, November 8, 2001; Pulse of the Twin Cities, January 16, 2002)

5: US Intentionally Destroyed Iraq's Water System

During the Gulf War, the United States deliberately bombed Iraq's water system. After the war, the US pushed sanctions to prevent importation of necessary supplies for water purification. These actions resulted in the deaths of thousands of innocent Iraqi civilians, many of whom were young children. Documents have been obtained from the Defense Intelligence Agency (DIA), which prove that the Pentagon was fully aware of the mortal impacts on civilians in Iraq and was actually monitoring the degradation of Iraq's water supply. The destruction of civilian infrastructures necessary for health and welfare is a direct violation of the Geneva Convention.

After the Gulf War, the United Nations applied sanctions against Iraq, which denied the importation of specialised equipment and chemicals, such as chlorine for purification of water. There are six documents that have been partially declassified and can be found on the Pentagon's website at <http://www.gulfink.osd.mil>. These documents include information that proves that the United States was fully aware of the costs to civilians, especially children, by upholding the sanctions against purification of Iraq's water supply.

The primary document is dated January 22, 1991, and is titled "Iraq Water Treatment Vulnerabilities". This document predicts what will take place when Iraq can no longer import the vital commodities to cleanse their water supply. It states that epidemics and disease outbreaks may occur because of pollutants and bacteria that exist in unpurified water. The document acknowledges the fact that without purified drinking water, the manufacturing of food and medicine will also be affected. The possibilities of the Iraqis' obtaining clean water, despite sanctions, along with a timetable describing the degradation of Iraq's water supply, were also addressed.

The remaining five documents from the DIA confirm the Pentagon's monitoring of the situation in Iraq. In more than one document, the likely outbreaks of diseases and how they affect civilians, "particularly children", are discussed in great detail. The final document, titled "Iraq: Assessment of Current Health Threats and Capabilities", is dated November 15, 1991, and discusses the development of a counterpropaganda strategy that would blame Saddam Hussein for the lack of safe water in Iraq.

The United States' insistence on using this type of sanction against Iraq is in direct violation of the Geneva Convention. The United Nations estimates that more than 500,000 Iraqi children have died as a result of sanctions and that unclean water is a major contributor to these deaths.

(Source: The Progressive, September 2001)

6: US Government Pushing Nuclear Revival

The US government is blazing a trail of nuclear weapon revival leading to global nuclear dominance. A nuke-revival group, supported by people like Stephen Younger, Associate Director for Nuclear Weapons at Los Alamos, proposes a "mini-nuke" capable of burrowing into underground weapon supplies and unleashing a small but contained nuclear explosion. This weapons advocacy group is comprised of nuclear scientists, Department of Energy (DOE) officials, right-wing analysts, former government officials and a congressionally appointed oversight panel. The group wants to ensure that the US continues to develop nuclear capacity into the next half-century.

Princeton theoretical physicist Robert W. Nelson has studied the question for the Federation of American Scientists. Nelson concluded: "No earth-burrowing missile can penetrate deep enough into the earth to contain an explosion with a nuclear yield even as small as one per cent of the 15-kiloton Hiroshima weapon. The explosion simply blows out a massive crater of radioactive dirt, which rains down on the local region with an especially intense and deadly fallout."

(Source: Bulletin of the Atomic Scientists, July/August 2001)

7: Corporations Promote HMO Model for School Districts

For decades, public schools have purchased innumerable products and services from private companies—from textbooks to bus transportation. Within the last decade, however, privatisation has taken on a whole new meaning.

"Education today, like health care 30 years ago, is a vast, highly localised industry ripe for change," says Mary Tanner, Managing Director of Lehman Brothers. "The emergence

of HMOs and hospital management companies created enormous opportunities for investors. We believe the same pattern will occur in education."

So while the aptly named Educational Management Organisations (EMOs) are being promoted as the new answer to impoverished school districts and dilapidated classrooms, the real emphasis is on investment returns rather than student welfare and educational development.

(Sources: The Progressive Populist, November 15, 2000; North Coast Xpress, Winter 2000; In These Times, June 2001; Multinational Monitor, January/February 2002)

8: NAFTA Destroys Farming Communities in US and Abroad

The North American Free Trade Agreement (NAFTA) and the International Monetary Fund (IMF) are responsible for the impoverishment of and loss of many small farms in Mexico and Haiti. NAFTA is also causing the economic destruction of rural farming communities in the United States and Canada. The resulting loss of rural employment has created a landslide of socio-economic and environmental consequences that are worsening with the continued dismantling and deregulation of trade barriers.

When NAFTA came before Congress in 1993, US farmers were told that the agreement would open the borders of Mexico and Canada, enabling them to sell their superior products and achieve previously unknown prosperity. Corporations which operate

The *Times of India* reported that in June 2001, the US government told India that there would be an invasion of Afghanistan in October of that year.

throughout the Americas, such as Tyson and Cargill, have since used the farming surplus to drive down costs, pitting farmers against each other and prohibiting countries from taking protective actions. These same corporations have entered into massive farming ventures outside the US and use NAFTA to import cheaper agricultural products back into this country, further undermining the small farmers in the US. Since the enactment of NAFTA, 80 per cent of foodstuffs coming into the US are products that displace US-raised crops.

NAFTA has allowed multinational megacorporations to increase production in Mexico, where they can profit from much cheaper labour as well as freely use chemicals and pesticides banned in the US. In both Mexico and Haiti, NAFTA policies have caused an exodus from rural areas, forcing people to live in urban slums and accept low-paid sweatshop work. Farmers in Mexico, unable to compete with the large-scale importation and chemical-intensive mass production of US agricultural corporations, are swimming in a corn surplus that has swelled approximately 450 per cent since NAFTA's implementation. Haiti's deregulation of trade with the US has destroyed the island's rice industry in a similar manner. Urban slums, engorged with rural economic refugees, are contributing to the breakdown of cultural traditions and public authority, making the growing masses increasingly ungovernable.

(Sources: Fellowship Magazine, December 2000/January 2001; The Hightower Lowdown, September 2001)

9: US Faces Housing Crisis

The national housing crisis affects nearly six million American families and is growing worse. Over 1.5 million low-cost housing units have recently been lost, and millions of children are growing up in housing that is substandard, unaffordable and dangerous.

A new crisis in affordable housing is spreading across America. What was once a problem relegated to low-income families along the East and West coasts is now affecting the middle class all across the country. Middle-class working Americans are having just as much trouble finding affordable housing as low-income families did 10 years ago.

Homelessness has become the result for many families across the nation. The economic slowdown, the welfare reform of 1996 and the events of September 11 are pushing hard-working Americans into the street. In New York alone, it is estimated that 30,000 people are living in shelters and many thousands more live on the street. In Chicago, more than 20,000 units of public housing have been removed from service and some 50,000 people now reside in the streets.

In an era when there is only one apartment for every six potential renters in the US, Congress has taken no action to address this problem. Corporate media have only covered this issue locally, and few media reports have recognised this as a national crisis.

(Source: In These Times, November 2000)

10: CIA Double Deals in Macedonia

The CIA destabilised the political balance in Macedonia to allow easier access for a US/British-owned oil pipeline and to prevent Macedonia from entering the European Union (EU),

thereby strengthening the US dollar in a German deutschmark-dominated region. Without Macedonia in the EU, British and US oil companies have an advantage over European counterparts in building oil pipelines. Actions toward destabilisation intend to impose economic control over national currencies and protect British-US oil companies, such as BP-Amoco-ARCO, Chevron and Texaco against Europe's TotalFinaElf.

The British-US consortium controls the AMBO trans-Balkans pipeline project linking the Bulgarian port of Burgas to Vlore on the Albanian-Adriatic coastline. The power game is designed to increase British-US domination in the region by distancing Bulgaria, Macedonia and Albania from the influence of EU countries such as Germany, Italy, France and Belgium. It's an effort supported by Wall Street's financial establishment, to destabilise and discredit the deutschmark and the euro, with hopes of imposing the US dollar as the sole currency for the region.

The Kosovo Liberation Army (KLA) and the National Liberation Army (NLA) were trained in Macedonia by British Special Forces and equipped by the CIA. British military sources confirm that Gezim Ostremi, NLA Commander, was sponsored by the UN and trained by British Special Forces to head the Kosovo Protection Corps (KPC). When Ostremi left his job as a

United Nations officer to join the NLA, the commander remained on the UN payroll. Attacks within Macedonia by the NLA/KLA last year coincided chronologically with the process of EU enlargement and the signing of the historic Stabilisation and Association Agreement (SAA) between the EU and Macedonia. These attacks paved the way for further US military and political presence in the region.

In a strange twist the CIA, NATO and British Special Forces provided weapons and training to the NLA/KLA terrorists, while at the same time Germany provided

Macedonia's security forces with all-terrain vehicles, advanced weapons and equipment to protect themselves from NLA/KLA attacks. US military advisers, on assignment to the NLA/KLA through private mercenary companies, remained in contact with NATO and US military and intelligence planners. It was Washington and London that decided on the broad direction of NLA/KLA military operations in Macedonia.

Following the August 2001 Framework Peace Agreement, 3,500 armed NATO troops entered Macedonia with the intent of disarming Albanian rebels. Washington's humanitarian efforts for the NLA/KLA suggested its intent to protect the terrorists rather than disarm them. Vice President Dick Cheney's former firm, Halliburton Energy, is directly linked to the AMBO trans-Balkans oil pipeline project.

Last year's conflict in Macedonia is a small part of a growing rift between the Anglo-American and European interests in the Balkans. In the wake of the war in Yugoslavia, Britain has allied itself with the US and severed many of its ties with Germany, France and Italy. Washington's design is to ensure the dominance of the US military-industrial complex, in alliance with Britain's major defence contractors and British-US oil. These developments establish significant control over strategic pipelines, transportation and communication corridors in the Balkans, Eastern Europe and the former Soviet Union.

(Source: <http://www.globalresearch.ca>, June 14, 2001)

Last year's conflict in Macedonia is a small part of a growing rift between the Anglo-American and European interests in the Balkans.

11: George W. Bush Appoints Former Criminals to Key Government Roles

Since becoming US President, George W. Bush has brought back into government service men who were discredited by criminal involvement in the Iran–Contra affair, lying to Congress and other felonies while working for his father, George Bush, Senior, and Ronald Reagan.

In February 2001, John Poindexter was appointed to head the new Information Awareness Office (IAO), an offshoot of the Pentagon-based Defense Advanced Research Projects Agency (DARPA). After serving as Reagan's National Security Advisor, John Poindexter was charged and found guilty of conspiracy, obstruction of justice and the destruction of evidence as he played a central role in the Iran–Contra affair. Costa Rica has officially declared Poindexter to be a drug trafficker, and has barred him from entering the country.

Elliot Abrams was recently appointed to the National Security Council (NSC) as Director of its Office for Democracy, Human Rights and International Relations. In 1991, Abrams pleaded guilty to withholding evidence from Congress regarding his role in the Iran–Contra affair. As Reagan's Assistant Secretary of State for Human Rights and Humanitarian Affairs, he used

to oversee US foreign policy in Latin America and was active in covering up some of the worst atrocities committed by the US-sponsored Contras. According to congressional records, under Abrams's watch the Contras "raped, tortured and killed unarmed civilians, including children" and "groups of civilians, including women and children, were burned, dismembered, blinded and beheaded". George Bush, Senior, subsequently pardoned him. (Sources: The Nation, May 7, 2001; In These Times, August 6, 2001; Extra!, September/October 2001; The Guardian, February 8, 2002)

12: NAFTA's Chapter 11 Overrides Public Protection Laws of Countries

Certain investor protections in NAFTA (North American Free Trade Agreement) are giving business investors new power over sovereign nations and providing an expansive new definition of property rights.

Chapter 11 of NAFTA, which allows a corporation to sue a government, contains a particularly disturbing "regulatory takings" clause. Under this "takings" clause, intangible property, such as a corporation's potential future profits, is considered private property. Any law or regulation that is imposed to protect the public interest is considered "taking" that company's potential to make a profit. Therefore, the government should be required to compensate the owners for lost property/profit.

This expanded definition of private property goes beyond established terms in US jurisprudence and supersedes domestic law. NAFTA's investor protections and the "regulatory takings" idea mimic a radical revision of constitutional law that the right wing has been pushing for years.

Some companies have already triumphed in their quest to acquire financial compensation for the loss of potential profit. In 2000, the Metaclad Corporation won a suit against the Mexican government. The outcome of the case means that US\$16.7 million of Mexican taxpayers' money will go to Metaclad in compensation for profits lost because the government stopped it from building a toxic waste dump.

(Sources: The Nation, October 15, 2001; Terrain, Fall 2001)

13: Henry Kissinger and Gerald Ford Lied to the American Public about East Timor

The release of previously classified documents makes it clear that former US President Gerald Ford and Secretary of State Henry Kissinger, in a face-to-face meeting in Jakarta, gave then-President Suharto the green light for the 1975 invasion of East Timor.

According to documents released by the National Security Archive (NSA) in December 2001 (the 26th anniversary of Indonesia's invasion of East Timor), Suharto told Ford during their talks on December 6, 1975, that "We want your understanding if it was deemed necessary to take rapid or drastic action [in East Timor]".

For years, Henry Kissinger has denied that any discussion of East Timor took place in Jakarta. The newly released dialogue between the three adds significantly to what is known about the role the US played in condoning the Indonesian invasion. The dialogue was part of a batch of documents on US policy affecting East Timor, obtained through the National Security Archive.

Indonesia invaded East Timor the day after Ford and Kissinger left. As many as 230,000 East Timorese died as a result of Indonesia's invasion and the 23-year occupation of the country. As much as one third of the population died as a result of starvation and disease caused by counterinsurgency operations carried out by the Indonesian Army from 1976 to 1999.

According to Amnesty International, East Timor represents one of the worst cases of genocide in the 20th century.

(Source: Asheville Global Report, December 13, 2001)

According to Amnesty International, East Timor represents one of the worst cases of genocide in the 20th century.



14: New Laws Restrict Access to Abortions in US

A quiet war against abortion rights is being conducted by many local governments in the United States. Cities and counties are placing repressive legal restrictions on abortion providers under the guise of women's health laws. These restrictions can be on the width of hallways, the type of jet and angle of drinking fountains, the height of ceilings, and how long one must wait between initially seeing the doctor and when the procedure can be performed.

These legal ordinances are known as TRAP laws. TRAP stands for Targeted Regulation of Abortion Providers. These laws attempt to restrict all aspects of the physical environment related to an abortion. While deemed women's health laws, many are seldom applied to any medical facility other than abortion clinics. The goal of TRAP laws is to discourage a woman's legal right to choose abortion. In the words of one right-to-life leader, the idea is to create an environment where abortion may indeed be perfectly legal, but no one can get one."

(Source: Mother Jones, September/October 2001)

15: Bush's Energy Plan Threatens Environment and Public Health

The Bush Administration's energy plan will actually increase air pollution in the United States. The plan calls for increased fossil fuel consumption and for decreased funding for research into renewable, clean energy development. The plan also lowers upgrade requirements on 30- to 60-year-old power plants that often emit 4-10 times as much sulphur dioxide, nitrogen oxide, carbon dioxide and mercury as newer power plants. The administration stands behind this plan despite higher smog levels, increased respiratory-related hospital visits and record-high asthma cases on the East Coast last year.

Although Bush conceded earlier in his presidency that global warming is underway and that steps must be taken to reduce emissions, the US is still responsible for 25 per cent of the world's emissions. The Bush plan puts into jeopardy the New Source Review (NSR) provision, which is a vital part of the Clean Air Act. The NSR requires facilities to offset pollution increases with reductions elsewhere in the facility or demonstrate that the facility is using the best available pollution control technology.

Major power, coal and oil companies which own power plants that were built between 1940 and 1970 have sought to ease the restrictions of the NSR, claiming that the law hurts their business due to high costs of upgrading to the best available pollution control technology. The EPA and several states have successfully sued a number of large utilities for violation of this NSR provision. These legal victories have led to millions of dollars in penalties.

Additionally, the Bush plan calls for a slashing of funding in research for renewable, clean forms of energy such as wind and solar power, which can provide very effective amounts of energy for US consumption. The slashing of funding for research into clean, renewable energy and increased dependence on fossil fuels will speed up the effects of global warming and have a detrimental effect on our health and environment.

(Sources: The Progressive Populist, March 1-5, 2002; Environment News Service, July 2001)

16: CIA Kidnaps Suspects for Overseas Torture and Execution

US agents are involved in abducting people they suspect of terrorist activities and sending them to countries where torture during interrogation is legal, according to US diplomatic sources. Suspects are shipped to allied countries where they are denied legal assistance and imprisoned without any specific charges made against them. The prisoners have been taken to countries such as Egypt and Jordan (whose intelligence agencies have close ties to the CIA), where they can be subjected to interrogation tactics, including torture and threats to family, which are illegal in the United States.

According to one US diplomat: "After September 11, these sorts of movements have been occurring. It allows us to get information from terrorists in a way we can't do on US soil."

Although such "movements" have intensified since 9-11, the US has long been involved in this practice of kidnapping. These abductions, known to those in the business as "rendition", violate local and international extradition laws as well as internationally recognised human rights standards.

According to the *Washington Post's* sources, from 1993 to 1999

suspects were rendered to the US from a variety of countries including South Africa, Nigeria, Kenya and The Philippines. US officials have acknowledged some of these operations, but the *Post's* sources say that dozens of other covert renditions occurred, the details of which remain cloaked in secrecy.

(Sources: The Weekend Australian, February 23, 2002; The Washington Post, March 11, 2002; World Socialist website, <http://www.wsws.org/articles/2002/mar2002/>, March 20, 2002)

The US press failed to inform the public of the core, underlying issues of the major anti-globalisation protests of recent years.

17: Corporate Media Ignore Key Issues of Anti-Globalisation Protests

The US press failed to inform the public of the core, underlying issues of the major anti-globalisation protests of recent years. Dramatic images such as protesters enshrouded in tear gas, facing down a line of police officers dressed in riot gear, have come to dominate the media coverage and overshadow the actual reasons that thousands of people are taking to the streets.

In July 2001, over 100,000 people went to Genoa to protest the G8 meetings. However, corporate television gave little recognition to the issues that were being raised by the protesters. CNN showed few protesters actually sharing their views and reasons for protesting.

Instead, news correspondents briefly summed up the protest in terms of who was there. This broad summary format was significantly lacking attention to specifics of the meetings or the protests. On Fox networks, the Genoa protesters were all but ignored.

A hard look at more than 200 stories by major news outlets, including ABC, CBS, CNN, Fox, NBC, the *Los Angeles Times*, the *New York Times*, the *Washington Post*, *Time* and *Newsweek*, shows serious weaknesses in the coverage of the four largest protests: the International Monetary Fund meeting in Prague in September 2000; the Hemispheric Free Trade talks in Quebec City in April 2001; the European Union summit in Gothenburg, Sweden, in June 2001; and the G8 meeting that took place in Genoa in July 2001. The problem is not so much the focus on the

small percentage of protesters who acted violently, but that the coverage lacks context.

The message that protesters are trying to get across is that they want more democratic control (and less corporate control) over the rules that affect the environment and labour conditions around the world. This includes more democratic control over supranational organisations such as the World Bank, the IMF and the World Trade Organization, whose un-elected leaders, the protesters argue, override democratically determined laws and regulations in the name of "development" and "free trade".

(Sources: Columbia Journalism Review, September/October 2001; The New York Times, February 5, 2002)

18: World's Coral Reefs Dying

One-quarter of all coral reefs have been destroyed by pollution, sedimentation, overfishing and rapid global climate change. Coral reefs have survived enormous changes in our planet's past, but today they are experiencing challenges from a multitude of new fronts. Remaining reefs are in such peril that governments are preparing for the contingency that millions of island residents will need to be relocated. Under assault from pollution, coastal development, agricultural runoff, overpopulation and overfishing, the world's reefs are exhibiting their vulnerability in many ways.

In the last two decades, worldwide coral bleaching events associated with higher sea-water temperatures have destroyed reefs throughout entire ocean basins. The 1997-98 El Niño killed 70 per cent of all corals in the Indian Ocean from Africa to India, and the reefs of the Galapagos Islands have yet to show signs of recovery from the bleaching event 17 years ago. Increases in ultraviolet rays entering the atmosphere have contributed to the bleaching effect in coral reefs worldwide.

The worldwide trade in aquarium fishing, currently worth US\$200 million per year, is another source of coral reef destruction. The collection methods for exotic fish include using poisons, primarily sodium cyanide, which destroy entire ecosystems in order to capture the few remaining fish on the perimeter. Blast fishery, also common in such places as The Philippines, is a practice whereby fish for local consumption are collected with explosives, killing the fish at the epicentre and incapacitating those on the perimeters. The blasts reduce the reefs to rubble, from which they may never recover.

(Source: Harper's, January 2001)

19: American Companies Exploit the Congo

Western multinational corporations' attempts to cash in on the wealth of the Congo's resources have resulted in what many have called "Africa's first world war", claiming the lives of over three million people. The Democratic Republic of Congo (DRC) has been labelled "the richest patch of earth on the planet". The valuable abundance of minerals and resources in the DRC has made it the target of attacks from US-supported neighbouring African countries Uganda and Rwanda.

The DRC is mineral-rich with millions of tons of diamonds, copper, cobalt, zinc, manganese, uranium, niobium and tantalum (also known as coltan). Coltan has become an increasingly valuable resource to American corporations; it is used to make mobile phones, night vision goggles, fibre optics, and capacitors used to maintain the electrical charge in computer chips. In December 2000, the shortage of coltan was the main reason that the popular sale of the Sony Play Station 2 video game came to an abrupt halt.

The DRC holds 80 per cent of the world's coltan reserves, more than 60 per cent of the world's cobalt, and is the world's largest supplier of high-grade copper. With these minerals playing a major part in maintaining US military dominance and economic growth, minerals in the Congo are deemed vital US interests.

Historically, the US government identified sources of materials in Third World countries and then encouraged US corporations to invest in and facilitate their production. Dating back to the mid-1960s, the US government literally installed the dictatorship of Mobutu Sese Seko, which gave US corporations access to the

Congo's minerals for more than 30 years. However, over the years Mobutu began to limit access by Western corporations, and to control the distribution of resources. In 1998, US military-trained leaders of Rwanda and Uganda invaded the mineral-rich areas of the Congo. The invaders installed illegal colonial-style governments that continue to receive millions of dollars in arms and military training from the United States. The US government and a US\$5 million Citibank loan maintains the rebel presence in the Congo. Their control of mineral-rich areas allows Western corporations, such as American Mineral Fields (AMF), to mine illegally. Rwandan and Ugandan control over this area is beneficial for both governments and for the corporations that continue to exploit the Congo's natural wealth.

(Sources: CovertAction Quarterly, Summer 2000; Voice, Pioneer Valley, MA, March/April 2001; Dollars and Sense, July/August 2001; The Voice News, Winstead, CT, January 4, 2002)

20: Novartis's Gene Research Endangers Plant Life

Scientists working for Swiss food giant Novartis have developed and patented a method for "switching off" the immune systems of plants—to the outrage of environmentalists and Third World charities who believe the new technology to be the most dangerous use so far of gene modification.

Patents filed by Novartis, manufacturers of Ovaltine, reveal that its scientists expect to be able to use the radical biotechnology for almost every crop on Earth. Novartis claims that the new use of genetic modification (GM) will give farmers greater control over disease and boost production. But critics insist that it will make Third World farmers dependent on buying the company's chemicals each year to produce healthy harvests.

Environmentalists fear the new technology could have a disastrous ecological impact if crops with suppressed immune systems are allowed to cross-pollinate with surrounding plant life. The use of GM technology which uses chemicals to activate genetic

One-quarter of all coral reefs have been destroyed by pollution, sedimentation, overfishing and rapid global climate change.

traits was specifically condemned by the UN earlier this year. It recommended that the technology not be field-tested, and called for a moratorium on its development until the impact had been fully assessed.

The patent documents seen by the *Observer* suggest that Novartis intends to use the new GM technology on barley, cucumbers, tobacco, rice, chillis, wheat, bananas and tomatoes. The company cites an extensive list of more than 80 crops, including several cereals, dozens of fruits such as apples, pears and strawberries, vegetables like beans and lentils, and cash crops like cotton and tea.

Dr Sue Mayer, Director of Gene Watch, says: "These companies should halt development of these potentially dangerous products until there has been a proper assessment of whether they are good for agriculture."

(Source: The Observer, London, October 8, 2000)

21: Large US Temp Company Undermines Union Jobs and Mistreats Workers

Labor Ready Inc. is a national temporary employment agency that employed over 700,000 people in 2000. Labor Ready has 839 offices in 49 US states and in Canada, and stands ready to place temporary workers as strike-breakers in union labour disputes. During the recent Northwest steel strike, it was Labor Ready which provided hundreds of strikebreakers to Kaiser Aluminum in Spokane, Washington.

Labor Ready temps are often paid minimum wages for what can be very rigorous construction work. They receive no health benefits and can be seriously mistreated in their temporary places of employment. Workers are required to arrive at despatch offices between 5.00 and 6.00 am and wait for daily referrals; however, they are not paid for the waiting time at the despatch office. Labor Ready workers also have to pay an average of US\$1.58 when they cash their daily paychecks at the company's cash-dispensing machines. In 1999, the company raked in \$7.7 million in fees from these machines. Labor Ready's worker injury rate is three times the national average.

The AFL-CIO Building and Construction Trades Department (BCTD) has supported class action lawsuits by former Labor Ready employees, and would like to see a national union organising efforts to protect temporary workers nationwide.

(Source: The Progressive Populist, June 1, 2001)

22: Fish Farms Threaten Health of Consumers and Aquatic Habitats

Farmed fish provide one-third of the seafood consumed by people worldwide. In the US, aquaculture supplies almost all of the catfish and trout as well as half of the shrimp and salmon. In the early 1990s, the fledgling aquaculture industry was hailed as a remedy to the problem of marine overfishing and the subsequent decline in jobs for fishermen. Unfortunately, aquaculture's harm to people and surrounding environments may be greater than its highly anticipated benefits.

A recent Canadian study found that a single serving of farmed salmon contains three to six times the World Health Organization's recommended daily intake limit for dioxins and

PCBs. A salmon farm of 200,000 fish releases an amount of nitrogen, phosphorus and faecal matter roughly equivalent to the nutrient waste in untreated sewage from 20,000 to 25,000 people. Farmed salmon (usually called Atlantic or cultured Atlantic salmon) are genetically modified to be larger and have a 50 to 70 per cent higher metabolic rate.

There is also a wide range of chemicals used in aquaculture, including antibiotics, parasiticides, pesticides, hormones, anaesthetics, minerals and vitamins. The use of these antibiotics is a health risk for fish as well as people, since it promotes the spread of antibiotic resistance in both human and fish pathogens.

(Sources: Mother Jones, November/December 2001; Pew Oceans Commission Report on Marine Aquaculture, 2001, website <http://www.pewoceans.org>)

23: Horses Face Lives of Unnecessary Abuse for Drug Company Profits

Premarin, the top-selling hormone replacement therapy (HRT) for menopausal women, is made from pregnant mares' urine (PMU). Oestrogen is extracted from the urine and is sold in many different forms to help with the symptoms of menopause. Approximately nine million women are currently taking some form of Premarin, and that number is expected to rise as the baby-boomer population ages.

Premarin, made by Wyeth-Ayerst Laboratories, a subsidiary of American Home Products, is the only human oestrogen replacement drug that is derived from animal products; most others are derived from soy and vegetables. The patent on Premarin, owned by Wyeth-Ayerst, is about to expire. This may well result in the manufacture of an array of generic substitutes, and is likely to increase the number of horses used in this industry.

Pregnant mares are four-legged drug machines, being repeatedly impregnated and confined to narrow stalls as their urine is collected. Horses are kept inside for six months out of the year. The horses are housed in cramped stalls no bigger than 8 feet x 3½ feet x 5 feet, and are hooked up to urine collection bags that are fixed into position just below the tail. These urine collection devices (UCDs) are painful and unhygienic. Urine soaks the skin of the vulva and can cause severe infection and painful lesions. The horses are tied with a short rope to keep them from taking more than a single step in either direction or from lying down. After several years on line, the mares are shipped to slaughterhouses where they are butchered, so their meat can be exported to Europe or Japan for human consumption.

Guidelines state that horses should be offered water no less than twice a day. However, PMU farmers prefer to give water as little as possible, to keep the concentration of oestrogen in the urine high. They are paid based on the concentration, not the volume, of urine collected.

Every spring, each mare gives birth to a foal. These foals spend the first few months with their mothers and then are rounded up in September to allow their mothers to rejoin the lines. Most of these young horses are then taken to feedlots where they are

Premarin, the top-selling hormone replacement therapy (HRT) for menopausal women, is made from pregnant mares' urine.

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THE BATTLE FOR IRAQI OIL

US Corporate Skulduggery since WWI

The Bush administration's current warmongering stance against Iraq has a history that can be traced back to the carve-up of Iraqi oil at the end of World War I.

by Richard Becker © 2002

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Email: ww@wwpublish.com
Website: <http://www.workers.org>

How and why did US involvement in Iraq begin? In all the countless hours the corporate media devote to broadcasting the Bush administration's lies and deceits about Iraq, that simple and crucial question is almost never addressed. And for good reason. Since its very beginning eight decades ago, US policy toward Iraq has been intensely focused on one objective: taking control of that country's rich oil resources.

The roots of US intervention in Iraq lie in the aftermath of World War I. It was a war between capitalist empires. On one side were the German, Austro-Hungarian and Ottoman (Turkish) empires. On the other side was the British-French-Russian imperial entente. Most of the Middle East was under Ottoman control.

The British, through their agent T. E. Lawrence—known to moviegoers as "Lawrence of Arabia"—promised Arab leaders that if they fought with Britain against their Turkish rulers, the British would support the creation of an independent Arab state after the war.

At the same time, the British, French and Russian foreign ministries were secretly signing the Sykes-Picot agreement. Sykes-Picot re-carved the Middle East. The agreement was made public after the Russian Revolution of 1917 by the Bolshevik Party, which denounced it as imperialist.

Mass revolts broke out all over the Middle East when the Arab and Kurdish peoples discovered their betrayal at the hands of the imperial "democracies". The rebellions continued throughout the colonial period. Repression was brutal in the extreme. In 1925, for instance, the British dropped poison gas on the Kurdish town of Sulaimaniya in Iraq—the first time that gas was deployed from warplanes.

BRITAIN AND FRANCE DIVIDE UP THE MIDDLE EAST

After the war ended in 1918, Britain and France proceeded with their plans. Lebanon and Syria, they agreed, would be incorporated into the French Empire. Palestine, Jordan and the two southern provinces of Iraq—Baghdad and Basra—would become part of the far-flung British Empire.

What they didn't agree about was who would get Mosul province, the northern area of present-day Iraq. According to the Sykes-Picot accord, it was part of the French "sphere of influence". The British were determined, however, to add Mosul, which was mainly Kurdish in population, to their new Iraq colony. To back its claim, the British Army occupied Mosul four days after the Turkish surrender in October 1918—and never left.

The resolution of the inter-imperialist struggle between Britain and France over Mosul brought with it the beginning of the US role in Iraq.

Mosul's importance to the big powers was based on its known, but as of then largely undeveloped, oil resources. The United States had entered World War I on the side of Britain and France in 1917, after both its allies and enemies were largely exhausted. US conditions for entering the war included the demand that its economic and political objectives be taken into account in the postwar world. Among those objectives was access to new sources of raw materials, particularly oil.

In February 1919, Sir Arthur Hirtzel, a top British colonial official, warned his associates: "It should be borne in mind that the Standard Oil Company is very anxious to take over Iraq." (*Quoted in Peter Sluglett, Britain in Iraq, 1914-32, London, 1974.*)

In the face of the British-French domination of the region, the United States at first demanded an "Open Door" policy. US oil companies should be allowed to negotiate

contracts freely with the new puppet monarchy of King Faisal, whom the British had installed on the throne in Iraq.

The solution to the victorious allies' conflict over Iraq was found in dividing up Iraq's oil. The British kept Mosul as part of their new Iraq colony.

NOT ONE DROP FOR IRAQ

Iraq's oil was split five ways: 23.75 per cent each to Britain, France, Holland and the United States. The remaining five per cent went to an oil baron named Caloste Gulbenkian, known as "Mr Five-Percenter", who helped negotiate the agreement. Exactly *zero* per cent of Iraq's oil belonged to Iraq. That's how it was to stay until the revolution of 1958.

In 1927, major oil exploration got underway. Huge deposits were discovered in Mosul province. Two years later, the Iraqi Petroleum Company—composed of Anglo-Iranian (today British Petroleum), Shell, Mobil and Standard Oil of New Jersey (Exxon)—was set up. Within a few years it had totally monopolised Iraqi oil production.

During the same period the al-Saud family, with Washington's backing, conquered much of the neighbouring Arabian peninsula. Saudi Arabia came into being in the 1930s as a neocolony of the United States. The US embassy in Riyadh, the Saudi capital, was located in the Aramco (Arab American Oil Company) building.

But the US oil companies and their government in Washington weren't satisfied. They wanted complete control of the Middle East's oil, just as they had a near-monopoly of the Western hemisphere's petroleum reserves. This meant displacing the British, who were still top dog in the region.

UNITED STATES EYES BRITISH INTERESTS

The US opportunity came as a result of World War II. While the United States and Britain are generally depicted as the closest of wartime allies, the fact is that they were at the same time fierce opponents.

The war greatly weakened the British Empire both at home and abroad, with the loss of key colonies in Asia. In the early stages

of the war, 1939–42, it was a question whether Britain would survive. It was never fully to recover its former dominance.

The US, on the other hand, grew increasingly powerful throughout the war—which the Washington rulers had once again bided their time before entering. In the latter stages of World War II, the Roosevelt and Truman administrations, dominated by big banking, oil and other corporate interests, were determined to restructure the postwar world to ensure the dominant position of the United States. The key elements in their strategy were:

(1) US military superiority in nuclear and conventional weaponry;

(2) US-dominated corporate globalisation, using the International Monetary Fund and World Bank, created in 1944, and establishment of the dollar as the world currency; and

(3) control of global resources, particularly oil.

While the fighting was still raging on the battlefields, a behind-the-scenes struggle for global economic control was unfolding between the United States and Britain. So intense was this battle that on March 4, 1944—three months before the D-Day invasion at

Normandy—British Prime Minister Winston Churchill sent a message to US President Franklin Roosevelt that was unusual in its imperialist content and hostile tone:

"Thank you very much for your assurances about no sheep's eyes [looking enviously—RB] on our oilfields in Iran and Iraq. Let me reciprocate by giving you the fullest assurance that we have no thought of trying to horn in upon your interests or property in Saudi Arabia. My position in this, as in all matters, is that Great Britain seeks no advantage, territorial or otherwise, as a result of this war. On the other hand, she will not be deprived of anything which rightly belongs to her after having given her best services to the good cause, at least not so long as your humble servant is entrusted with the conduct of her affairs." (Quoted in Gabriel Kolko, *The Politics of War*, New York, 1968.)

What this note clearly shows is that the US leaders were so intent on taking over Iran and Iraq, both important neocolonies of Britain, that they had set off alarm bells in British ruling circles.

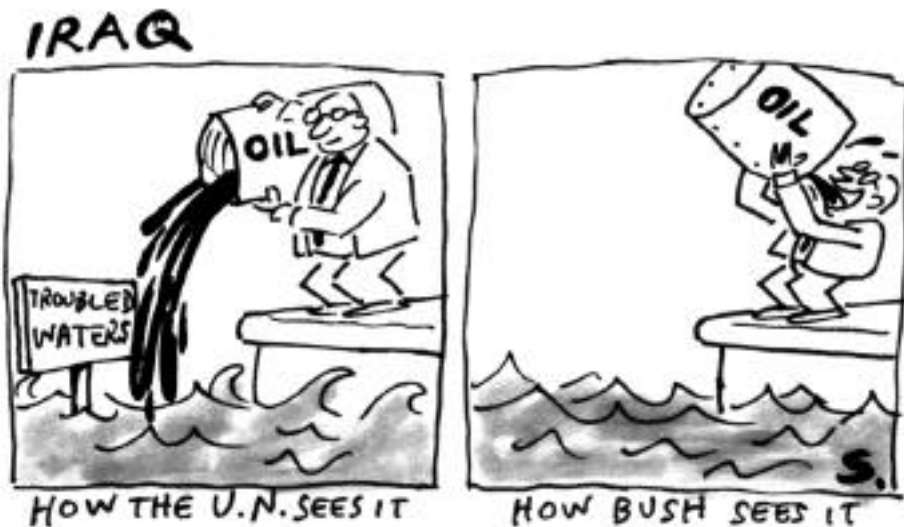
Despite Churchill's bluster, there was nothing the British could do to restrain rising US power. Within a few years, the British ruling class would adapt to the new reality and accept the role of Washington's junior partner.

US ROLE EXPANDS AFTER WORLD WAR II

In 1953, after the CIA coup that put the Shah in power, the United States took control of Iran. By the mid-1950s, Iraq was jointly controlled by the United States and Britain.

Washington set up the Baghdad Pact, which included its client regimes in Pakistan, Iran, Turkey and Iraq, along with Britain, in 1955. The Baghdad Pact, or CENTO—Central Treaty Organization—had two purposes.

Saudi Arabia came into being in the 1930s as a neocolony of the United States.



The first was to oppose the rise of Arab and other liberation movements in the Middle East and South Asia. The second purpose was for it to be another in a series of military alliances—NATO, SEATO and ANZUS were the others—encircling the socialist camp of the Soviet Union, China, Eastern Europe, North Korea and North Vietnam.

Iraq, the core of CENTO, was independent only in name. The British maintained military airfields in Iraq. While the country was extremely rich in oil, having 10 per cent of the world's reserves, the people lived in extreme poverty and hunger. The rate of illiteracy was over 80 per cent. There was one doctor for every 6,000 people; one dentist for every 500,000.

Iraq was ruled by a corrupt monarchy under King Faisal II and a coterie of feudal landowners and merchant capitalists.

Underlying Iraq's poverty was the simple fact that Iraq did not own its vast oil reserves.

THE IRAQI REVOLUTION

But on July 14, 1958, Iraq was rocked by a powerful social explosion. A military rebellion turned into a countrywide revolution. The king and his administration were suddenly gone, the recipients of people's justice.

Washington and Wall Street were stunned. In the week that followed, the *New York Times*, the US "newspaper of record", had virtually no stories in its first 10 pages other than those about the Iraqi Revolution.

While another great revolution that took place just six months later in Cuba is better remembered today, Washington regarded the Iraqi upheaval as far more threatening to its vital interests at the time.

President Dwight D. Eisenhower called it "the gravest crisis since the Korean War". The day after the Iraqi Revolution, 20,000 US Marines began landing in Lebanon. The day after that, 6,600 British paratroopers were dropped into Jordan.

This is what came to be known as the "Eisenhower Doctrine". The United States would intervene directly—go to war—to prevent the spread of revolution in the vital Middle East.

US and British expeditionary forces went in to save the neo-colonial governments in Lebanon and Jordan. Had they not, the popular impulse from Iraq would have surely brought down the rotten dependent regimes in Beirut and Amman.

But Eisenhower, his generals and his arch-imperialist Secretary of State John Foster Dulles also had something else in mind: invading Iraq, overturning the revolution and installing a new puppet government in Baghdad.

Three factors forced Washington to abandon that plan in 1958: the sweeping character of the Iraqi Revolution; the announcement by the United Arab Republic, which bordered Iraq, that its forces would fight the imperialists if they sought to invade; and the emphatic support of the People's Republic of China and the Soviet Union for the revolution. The USSR began a mobilisation of troops in the southern Soviet republics close to Iraq.

The combination of these factors forced the US leaders to accept the existence of the Iraqi Revolution. But Washington never really reconciled itself to the loss of Iraq.

Over the next three decades, the US government applied many tactics designed to weaken and undermine Iraq as an independent country. At various times—such as after Iraq completed the nationalisation of the Iraqi Petroleum Company in 1972 and signed a defence treaty with the USSR—the United States gave massive military support to right-wing Kurdish elements fighting Baghdad and added Iraq to its list of "terrorist states".

The United States supported the more rightist elements within the post-revolution political structure against the communist and leftist-nationalist forces. For example, the United States applauded the suppression of the Iraqi Communist Party and Left-led labour unions by the Ba'ath Party government of Saddam Hussein in the late 1970s.

In the 1980s, the United States encouraged and helped to fund and arm Iraq in its war against Iran. US domination of the latter was ended by Iran's Islamic Revolution in 1979. In reality,

though, the US aim in the Iran-Iraq war was to weaken and destroy both countries. Ex-Secretary of State Henry Kissinger revealed the real US attitude about the war when he said: "I hope they kill each other."

The Pentagon provided Iraq's air force with satellite photos of Iranian targets. At the same time, as the Iran-Contra scandal revealed, the United States was sending anti-aircraft missiles to Iran.

The Iran-Iraq war was a disaster, killing a million people and weakening both countries.

What moves US policy toward Iraq in 2002 is the same objective that motivated Washington and Wall Street 80 years ago: oil.

COLLAPSE OF THE USSR AND GULF WAR

When the Iran-Iraq war finally ended in 1988, developments in the Soviet Union were posing a new and even graver danger to Iraq, which had a military and friendship treaty with the USSR. In pursuit of "permanent *détente*" with the United States, the Gorbachev leadership in Moscow began to cut its support for its allies in the developing world.

In 1989, Gorbachev went further and withdrew support for the socialist governments in Eastern Europe, most of

which then collapsed. This sharp shift in the world relationship of forces—culminating in the collapse of the Soviet Union itself two years later—constituted the greatest victory for US imperialism since World War II. It also opened the door for the US war against Iraq in 1991, and more than a decade of sanctions, blockades and bombings that have devastated Iraq and its people.

Today, the Bush administration is seeking to win public support for a new war against Iraq, by talking about "weapons of mass destruction" and "human rights". The reality is that Washington is concerned about neither Iraq's diminished military capacity nor human rights anywhere in the world. What moves US policy toward Iraq in 2002 is the same objective that motivated Washington and Wall Street 80 years ago: oil.

Editor's Note:

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COLIN CAMPBELL ON OIL

Perhaps the World's Foremost Expert on Oil and the Oil Business Confirms the Ever More Apparent Reality of the Post-9-11 World

by Michael C. Ruppert © October 23, 2002

Before we turn to this interview, it is necessary for the reader to understand several critical factors about oil and oil production. Almost every current human endeavour, from transportation to manufacturing to plastics and especially to food production, is inextricably intertwined with oil and natural gas supplies.

All oil production follows a bell curve, whether in an individual field or on the planet as a whole. On the upslope of the curve, production costs are significantly lower than on the downslope when extra effort (expense) is required to extract oil from reservoirs that are emptying out. The best and easiest to produce oil is always extracted first to maximise profits.

In 100 years, mankind has used half of all the oil on the planet, oil that took billions of years to produce and is the result of climatic conditions that have existed at only one time in the Earth's 4.5-billion-year history. Oil is a non-renewable resource.

The key event in the "petroleum era" is not when the oil runs out but when oil production peaks, especially as demand and population are rising. World per-capita oil production peaked in 1979 and has been in decline since. The peak in volume of total world oil production is upon us right now, even as the demand—or, better said, the need—for oil is increasing rapidly.

Several things are a given. Firstly, the total remaining conventional oil on the planet is estimated to be around one trillion barrels. Secondly, at present rates (not those of five or 10 years from now), the world is using close to 80 million barrels per day. At this rate, there would be only enough oil to sustain the planet for another 35 years under the best of scenarios.

But the oil that remains is going to be increasingly expensive to produce and will tend to be of a lesser quality, necessitating higher refining costs, than what has already been used. All of those costs will have to be passed on in the form of price hikes or, in some cases, spikes. Oil price spikes invariably lead to recession. The world's economy is based upon the sale of products that are either made from oil or need hydrocarbon energy (including natural gas) to operate, either via internal combustion or via electricity.

Different regions of the world peak in oil production at different times. The US peaked in the early 1970s. Europe, Russia and the North Sea have also peaked. However, the OPEC nations of the Middle East will peak last. Within a few years, they—or whoever controls them—will be in effective control of the world oil economy and, in essence, of human civilisation as a whole. Two of the nations that will peak last are Saudi Arabia and Iraq, both

The key event in the "petroleum era" is not when the oil runs out but when oil production peaks, especially as demand and population are rising.

of which will not peak until the middle of the next decade. Saudi Arabia contains 25 per cent of all the oil on the planet; Iraq contains 11 per cent.

Science and the oil industry have confirmed that there is very little oil left to be found, certainly not enough to make a difference in this grim picture—a picture which goes a long way toward explaining the events of 9-11 and since.

From The Wilderness (FTW): What will be the likely effects of hitting the downslope of production?

Colin Campbell: Big question. Simply stated: war, starvation, economic recession, possibly even the extinction of *Homo sapiens*, insofar as the evolution of life on Earth has always been accomplished by the extinction of over-adapted species (when their environmental niche changed for geologic or climatic reasons), leaving simpler forms to continue and eventually giving rise to new, more adapted species. If *Homo sapiens* figures out how to move back to simplicity, he will be the first to do so.

FTW: How soon before we start to feel the effects of dwindling oil supplies?

Campbell: We already are—in the form of the threatened US invasion of the Middle East. The US would have to be importing 90 per cent of its oil by 2020 to hold even current demand, and access to foreign oil has long been officially declared a vital national interest justifying military intervention. Probable actual physical shortage of all liquid hydrocarbons worldwide won't appear for about 20 years, especially if deepening recession holds down demand. But people are coming to appreciate that peak is imminent and what it means. Some places like the US will face shortage sooner than others. The price is likely to soar as shortage looms, which itself may delay peak.

If the US does invade, there will likely be a repeat of Vietnam with many years of fruitless struggle in which the US will be seen as a tyrant and an oppressor, killing all those Arabs. It can't hope to subjugate the place in perpetuity, as the Palestinians have shown. So when the US has finally gone, Russia and China will likely be welcomed there to produce whatever is left in the ruins.

FTW: Are the major oil companies currently downsizing?

Campbell: The majors are merging and downsizing and outsourcing and not investing in new refineries because they know full well that production is set to decline and that the exploration opportunities are getting fewer and fewer. Who would drill in 10,000 feet of water if there were anywhere else easier left?

But the companies have to sing to the stockmarket, and merger hides the collapse of the weaker brethren. The staff is purged on merger, and the combined budget ends up much less than the sum of the previous components. Besides, a lot of the executives and bankers make a lot of money from the merger.

FTW: How much oil is really left?

Campbell: You have to think of different categories of oil. Speaking of conventional, which is the easy, cheap stuff that has supplied most uses to date and will dominate all supply far into the future, there is about one trillion barrels left. To this you have to add:

- (a) Oil from coal, "shale" tar sands, heavy oil: the resource is very large, but the extraction rate is low and costly, sometimes giving negative net energy;
- (b) Deepwater oil (from a depth of greater than 500 metres): about 60 billion barrels;
- (c) Polar: about 30 billion, maybe;
- (d) Natural gas liquids: about 300 billion barrels.

FTW: Will Central Asian/Caspian pipelines have an impact on the crisis? How long will it take them to come on line?

Campbell: There was talk of the place holding over 200 Gb [billion barrels]—I think emanating from the USGS [US Geological Survey]—but the results after 10 years of work have been disappointing. The West came in with high hopes. The Soviets found Tengiz onshore in 1979 with about 6 Gb of very deep, high-sulphur oil in a reef. Chevron took over and is now producing it with difficulty. But offshore they found a huge prospect called Kashagan in a similar geological setting to Tengiz. If it had been full, it could have contained 200 Gb, but they have now drilled three deep wells at huge cost, finding that instead of being a single reservoir, it—like Tengiz—is made up of reefs. Reserves are now quoted at between 9 Gb and 13 Gb. BP–Statoil has pulled out. Caspian production won't make any

material difference to world supply. There is, however, a lot of gas in the vicinity. To put it in perspective, this Caspian oil would supply the world for a little over a year, but it is broadly the same as US potential.

It is quite possible that the Afghan war was about securing a strong point in this area. But interest in it has now dwindled, along with Caspian prospects, as the US turns to Iraq, which does have some oil. It is curious that these two US military exercises had/have different pretexts:

- (a) Afghanistan was to find the supposed architect of September 11—in which the US failed; and
- (b) Iraq is about a sudden and unexplained fear that it might develop some objectionable weapons that might pose a threat to someone in the future.

North Korea, which already has nuclear weapons and long-

range missiles—and isn't exactly a friendly place—is not deemed a threat. [Note: In mid-October, North Korea owned up to its nuclear weapons program, though the Americans have known about it for years. Ed.]

The cynic can be forgiven for thinking there is some other motive for these military moves. Could it be oil?

FTW: When and how was it discovered that the Central Asian reserves were much smaller than anticipated?

Campbell: I guess you could say over the past 24 months as the different pieces in the jigsaw fell into place. There is no single event or date, but, rather, an evolving picture.

FTW: What about replacement sources and alternative energy? Tar sands?

Campbell: Of course, there are alternatives ranging from wind, sun, tide, nuclear, etc., but today they contribute only a very small percentage and do not come close to matching the oil of the past in terms of cost or convenience. No doubt production from tar sands and heavy oils can be stepped up in the future but it is painfully slow and expensive, carrying also environmental costs. It will help ameliorate the decline, but has minimal impact on peak. The simple solution is to use less. We are extremely wasteful energy-users. But it involves a fundamental

change of attitude and the rejection of classical economic principles, which were built on endless growth in a world of limitless resources. Those days are over, exacerbated by the soaring population—itsself now set to decline, partly from energy shortage.

FTW: Has anyone determined what percentage of oil is used for military purposes worldwide? If so, how much?

Campbell: I don't know how much is used for military purposes, but it must be considerable. The US has built a huge stockpile in the Middle East for the war.

FTW: Is China the end game of competition for oil?

Campbell: Yes, China is in desperate need of imports as its own supply depletes. It has been very thoroughly explored. It will be vying with the US for access to foreign oil. It is already well established in Iraq.

That is about how I see it.

World per-capita oil production peaked in 1979 and has been in decline since.

Editor's Note:

• Interviewer **Michael C. Ruppert** is Publisher and Editor of the influential newsletter *From The Wilderness*.

His articles have appeared regularly in NEXUS in the last few years. Mike was a popular speaker at the 2002 NEXUS Conference in Sydney and is scheduled to speak at the 2003 NEXUS Conference in Amsterdam.

He can be contacted at *From The Wilderness*, PO Box 6061-350, Sherman Oaks, CA 91413, USA, email mruppert@copvcia.com, website <http://www.copvcia.com>.

(FTW is published 11 times a year; subscriptions are US\$50 in USA for 12 issues, or US\$60 foreign.)

• **Colin Campbell** is both an academic and a businessman. Educated at Oxford and holding a Masters degree, he has served as a geologist for Oxford University, Texaco, British Petroleum and Amoco (prior to the BP Amoco merger). He has had executive positions with Shenandoah Oil, Amoco and Fina, and was Chairman of the Nordic American Oil Company.

He has been an oil consultant for the Bulgarian government as well as for Statoil, Mobil, Amerada, Total, Shell, Esso and for the firm Petroconsultants in Geneva.

Colin is the Convenor and newsletter editor of the Association for the Study of Peak Oil (ASPO), and a Trustee of the Oil Depletion Analysis Centre in

London. As a member of the American Society of Petroleum Geologists, The Geological Society of London and the Petroleum Institute of London, he has delivered more than 35 lectures on oil depletion on three continents.

His hosts have included universities, governments and auto manufacturers. He has been published more than 150 times in the field, including in the 1997 book *The Coming Oil Crisis* (Multi-Science Publishing Co. and Petroconsultants).

For more information on Colin Campbell's work, on ASPO and the Oil Depletion Analysis Centre, visit the website <http://www.oilcrisis.com/aspo>.

— XYLITOL —

OUR SWEET SALVATION?

Xylitol is not only a safe, natural sweetener without the bad side-effects of sugar and artificial substitutes, it's also good for your teeth, stabilises insulin and hormone levels and promotes good health.

by Sherrill Sellman © 2002

GetWell International
PO Box 690416
Tulsa, OK 74169-0416, USA
Email: golight@earthlink.net
Website: <http://www.ssellman.com>

Editor's Note: Several mentions of animal experiments are made in this article. NEXUS does not agree with the practices of animal experimentation and vivisection, but we also don't want to censor the articles we publish.

Americans have a mighty hankering for sugar. It seems that we just can't get enough of the stuff. On average, a half a cup of sugar is consumed per person every day. It is estimated that the average American eats, drinks, slurps, stirs and sprinkles about 150 pounds of it annually. Never in modern history has a culture consumed so much sugar.

Sugar truly does deserve its reputation as a "white poison". Thinking of sugar as a food is really a stretch of the imagination, because it is more a chemical that is difficult for our bodies to utilise and digest. Humans were really not designed to eat large amounts of sugar in whatever form it may take: white and brown, corn syrup, sucrose, dextrose, glucose, fructose, lactose, maltose, barley malt, honey, rice syrup and maple syrup. Sugar is also highly seductive, acting like an addictive drug that lures even the most well-intentioned person back into its sweet clutches.

According to Chinese wisdom, sweetness is one of the flavours necessary for maintaining balance in the body. But regularly eating large amounts of sugar will cause serious harm. Sugar can cause hypoglycaemia and weight gain, leading to diabetes and obesity in both children and adults. It leaches the body of vital minerals and vitamins. It raises blood pressure, triglycerides and the bad cholesterol (LDL), increasing the risk of heart disease. It causes tooth decay and periodontal disease, which leads to tooth loss and systemic infections. It makes it difficult for a child's brain to learn, resulting in a lack of concentration. Both children and adults exhibit disruptive behaviour, learning disorders and forgetfulness from sugar consumption. It initiates auto-immune and immune deficiency disorders such as arthritis, allergies and asthma. It also upsets hormonal imbalance and supports the growth of cancer cells.

So what are we to do? Will our sugar-cravings always hold us hostage, or is there really a way to lick the sugar habit successfully?

Xylitol to the Rescue!

During World War II, Finland was suffering from an acute sugar shortage. With no domestic supply of sugar, the Finns searched for an alternative. It was then that the Finnish scientists re-discovered *xylitol*, a low-calorie sugar made from birch bark. It had, in fact, been known to the world of organic chemistry since it was first manufactured in 1891 by a German chemist.

By 1930, xylitol had been purified, but it wasn't until World War II that the sugar shortages forced researchers to look at alternative sweeteners. It was only when xylitol was stabilised that it became a viable sweetener in foods. It was also during this time that researchers discovered xylitol's insulin-independent nature (it metabolises in the body without using insulin).

By the 1960s, xylitol was being used in Germany, Switzerland, the Soviet Union and Japan as a preferred sweetener in diabetic diets and as an energy source for infusion therapy in patients with impaired glucose tolerance and insulin resistance. Since then, many other countries including Italy and China have been producing xylitol for use in their domestic markets—and with remarkable health benefits. It has been relatively

unknown in the USA and Australia, primarily because cheap supplies of cane sugar made the more expensive xylitol less economically viable.

Xylitol is a natural substance found in fibrous vegetables and fruit, as well as in corn cobs and various hardwood trees like birch. It is a natural, intermediate product which regularly occurs in the glucose metabolism of man and other animals as well as in the metabolism of several plants and micro-organisms. Xylitol is produced naturally in our bodies; in fact, we make up to 15 grams daily during normal metabolism.

Although xylitol tastes and looks exactly like sugar, that is where the similarities end. Xylitol is really sugar's mirror image. While sugar wreaks havoc on the body, xylitol heals and repairs. It also builds immunity, protects against chronic degenerative disease and has anti-ageing benefits. Xylitol is considered a five-carbon sugar, which means it is an antimicrobial, preventing the growth of bacteria. While sugar is acid forming, xylitol is alkaline enhancing. All other forms of sugar, including sorbitol, another popular alternative sweetener, are six-carbon sugars which feed dangerous bacteria and fungi.

Approved by the US Food and Drug Administration (FDA) in 1963, xylitol has no known toxic levels. The only discomfort that some sensitive people may notice initially when taking large amounts is mild diarrhoea or slight cramping.

Since the body makes xylitol daily, as well as the enzymes to break it down, any discomfort usually disappears within a few days as the body's enzymatic activity adjusts to a higher intake.

Xylitol has 40 per cent fewer calories and 75 per cent fewer carbohydrates than sugar and is slowly absorbed and metabolised, resulting in very negligible changes in insulin. About one-third of the xylitol that is consumed is absorbed in the liver. The other two-thirds travels to the intestinal tract where it is broken down by gut bacteria into short-chain fatty acids.

Xylitol looks, feels and tastes exactly like sugar and leaves no unpleasant aftertaste. It is available in many forms. In its crystalline form, it can replace sugar in cooking, baking or as a sweetener for beverages. It is also included as an ingredient in chewing gum, mints and nasal spray.

Xylitol and Oral Health

Tooth decay and gum disease are serious problems. According to the American Dental Association, 75 per cent of American adults over the age of 35 suffer from some form of periodontal disease.¹ Needless to say, diet plays a major role in dental health. When there is an excess of sugar in the diet, this weakens the immune system and creates an acidic environment; thus oral health suffers. The mouth is home to over 400 strains of bacteria. Most of these are benign, but when sugar enters the scene it feeds the destructive strains, allowing them to proliferate.

Periodontal disease is basically caused by bacteria. These deposits permit the growth of bacteria that cause inflammation of the gums. The bacteria also release minute amounts of toxins that break down gum tissue, thereby helping the infection to progress. Plaque is an invisible, sticky film of saliva and food residue that constantly forms on the teeth. Ongoing low-grade bacterial infection also burdens the immune system.

Bacteria help to create plaque and they also thrive within it. Unless removed, plaque formed along the gum line can lead to gum disease. When left untreated, plaque at or below the gum line hardens into tartar.

Periodontal disease takes two forms: simple gum inflammation, called *gingivitis*; and a more severe gum infection, called *periodontitis*, which may lead to tooth loss and receding gums.

Gingivitis results from the build-up of plaque and tartar which irritate the gum or periodontal tissue. The more advanced state of gum disease, periodontitis, occurs when inflammation of the gums is accompanied by bone and ligament destruction. Bleeding gums are usually the first indication that gum disease is developing, but obvious symptoms may not always be present.

Gum infection can also lead to other serious health problems. It doubles the risk of stroke, triples the risk of heart attack, increases the incidence of premature, low-weight babies and also contributes to bronchitis, pneumonia and emphysema. In fact, the same bacteria that cause gum disease end up either directly or indirectly infecting your heart and arteries. A study conducted at the University of Minnesota in 1998 found that rabbits injected with tooth plaque developed blood clots which led to heart disease.² It seems that the bacteria first

attack the bones and gums in the mouth and then enter the bloodstream through small cracks in the gums.

Eating sugar causes tooth decay by creating a highly acidic condition in the mouth. Acidity strips tooth enamel of minerals, causing it to weaken and making it more vulnerable to attack by bacteria, leading to tooth decay or demineralisation. Ordinarily, saliva bathes the mouth with an alkaline solution that neutralises all acidity and actually remineralises the teeth. Saliva also washes away leftover bits of food

and helps the digestion process. But when saliva turns acidic because of too many sweets, bacteria in the mouth have a feeding frenzy. These nasty bacteria, along with carbohydrate waste, stick to the teeth and tongue and hold the acid close to the teeth where it eats away enamel. Virtually whatever food you ingest, the remaining particles become food for plaque-producing bacteria. Using xylitol helps to raise plaque pH, thereby reducing the time that teeth are exposed to damaging acids as well as starving harmful bacteria of their food source.

Xylitol is a dentist's dream. It reverses all these destructive effects of sugar on oral health. Xylitol is non-fermentable and therefore cannot be converted to acids by oral bacteria, thus it helps to restore a proper alkaline/acid balance in the mouth. This alkaline environment is inhospitable to all the destructive bacteria, especially the worst variety, *Streptococcus mutans*. It also inhibits plaque formation.

Using xylitol right before bedtime, after brushing and flossing, protects and heals the teeth and gums. Unlike sugar, it can even be left on the teeth overnight. With proper use, xylitol actually stops the fermentation process leading to tooth decay. Long-term use suppresses the most harmful strains of oral bacteria, making a long-lasting change in those bacterial communities. Xylitol even has the ability to enhance the mineralisation of the enamel. It is most effective in treating small decay spots. Although larger cavities won't go away, they can harden and become less sensitive.

Consistently using small amounts of xylitol tends to increase protective factors in saliva. Xylitol stimulates saliva flow and

Xylitol is a natural substance found in fibrous vegetables and fruit, as well as in corn cobs and various hardwood trees like birch.

helps keep salivary minerals in a useful form. Prolonged xylitol use increases the buffering capacity and protective factors in saliva. Increased saliva production is especially important for people suffering with a dry mouth due to illness, ageing or drug side-effects.

Since the oral environment becomes less acidic with continued xylitol use, it is advisable to chew xylitol gum or suck a xylitol mint after every meal or after eating sweet snacks. The best news is that studies have shown that xylitol's effect is long-lasting and possibly even permanent.

Xylitol has recently received positive support in the *Journal of the American Dental Association*. "Xylitol is an effective preventive agent against dental caries... Consumption of xylitol-containing chewing gum has been demonstrated to reduce caries in Finnish teenagers by 30–60 per cent. Studies conducted in Canada, Thailand, Polynesia and Belize have shown similar results..."³ A study conducted at Harvard School of Dental Medicine concluded that "xylitol can significantly decrease the incidence of dental caries".⁴

Another unexpected benefit came from a Finnish study which showed that children whose teeth are colonised between 19 and 31 months of age by *Streptococcus mutans* bacteria are more likely to have a large number of cavities. Most children acquire this bacteria from their mother's saliva through food tasting, sharing cups and kissing. The study showed a dramatic 70 per cent reduction in tooth decay among children whose mothers chewed xylitol gum.⁵

Xylitol, however, isn't just for the young. In a paper published in the *Journal of the American Geriatrics Society*, researchers tested 111 adults aged 60 and older over a 12-month period. All were frail but healthy adults. In the study, one group of volunteers chewed no gum, a second chewed gum containing xylitol, and a third group chewed gum containing both xylitol and an antimicrobial. In the two groups receiving gum, the participants chewed two pieces for 15 minutes, two times per day. At the end of the study, the researchers reported that the group who received xylitol gum had substantially lowered their risk of developing thrush, a fungal or yeast infection that can cause mouth soreness. (The group who received xylitol plus the antimicrobial had equal benefits.) It had also reduced their risk of developing angular cheilitis, a condition in which sores develop in the corners of the mouth. The researchers noted that xylitol gum can provide a "real clinical benefit" to frail, elderly people.⁶

Xylitol and Ear, Nose and Throat Infections

Recurring middle ear infections pose a great health threat to children. Tubes are often inserted into the ear drum in children with these recurring infections to reduce the fluid that is attempting to wash out the infection from the middle ear. While this procedure sometimes helps to reduce the frequency of infections, it is also designed to help with hearing.

Language, a critical part of learning, is built by auditory input during the first two years of life—the same period when ear infections are most common. If this input is dampened by infection or fluid in the middle ear during this important period, it can cause learning problems. One researcher demonstrated that even when properly treated, recurrent middle ear infections during the first

two years result in significant impairment in reading ability up to the age of nine.⁷ Another study followed children longer and showed significant learning and social problems extending up to age eighteen.⁸

One of xylitol's versatile benefits is its ability to inhibit the growth of bacteria that cause middle ear infections in young children. In two recent studies involving over 1,000 children, xylitol-flavoured chewing gum was found to reduce the incidence of middle ear infections by 40 per cent, significantly decreasing ongoing middle ear complications and the need for antibiotics.

Regularly washing the nose with a spray containing xylitol decreases the number of harmful bacteria and stimulates normal defensive washing of this area. A clean nose reduces problems with allergies and asthma that originate from nasal irritants and pollutants. Current research shows how bacteria attach to cells in the body, causing infection. Some sugars like xylitol are known to be able to interfere with this binding, blocking the attachment of the major infection-causing bacteria that live in the nose. Dr Lon Jones, a physician in Plainsview, Texas, reported that the use of a xylitol nasal spray in his practice prevented 93 per cent of ear infections and resulted in comparable reductions in sinus infections, allergies and asthma.⁹

Xylitol has been shown to be effective in inhibiting *Candida albicans*, a serious systemic yeast problem, and other harmful gut bacteria including *H. pylori*, implicated in periodontal disease, bad breath, gastric and duodenal ulcers and even stomach cancer.

Xylitol and Osteoporosis

Another exciting benefit from xylitol is its role in reversing bone loss. Studies in Finland found that xylitol

maintained bone density in rats that had their ovaries removed. Without ovaries, oestrogen levels plummeted and so did the bone density in rats that were not given xylitol. However, in the rats that had ovaries removed and were given xylitol, bone density actually increased.¹⁰ Another study showed that xylitol was effective in decreasing age-related bone loss in older male rats by 10 per cent.¹¹

In an unprecedented action, the Finnish researchers made bold recommendations for human application of their studies. They suggested that an effective human dose would be about 40 grams daily. The scientists speculated that xylitol's bone density enhancing properties are due to its ability to promote intestinal absorption of calcium. Including xylitol in one's diet is certainly an enjoyable way to reap the benefits of greater bone density, along with other health benefits.

Xylitol and Insulin Resistance, Diabetes Hypertension and Hormonal Imbalances

Consuming sugar and other refined carbohydrates results in the rapid release of glucose, or blood sugar. In response, the pancreas secretes insulin to usher glucose into the cells, where it is burned for energy. Excess glucose stresses the system, and over time the cells become less responsive to insulin. This condition, known as *insulin resistance*, is a huge health problem and it is estimated to affect half the American population. Insulin resistance is associated with abnormalities in cholesterol and triglyceride levels, hypertension, increased risk of heart disease and diabetes.

The dramatic rise in type-2 diabetes since the mid-1900s

One of xylitol's versatile benefits is its ability to inhibit the growth of bacteria that cause middle ear infections in young children.

directly coincides with our increased consumption of sugar. One long-term study of more than 65,000 women demonstrated that a high-sugar, low-fibre diet increased the risk of type-2 diabetes by 250 per cent. Another recent study found that excessive intake of sugar was the single most important dietary risk factor for heart disease in women and for men. It has been estimated that sugar intake may account for more than 150,000 premature deaths from heart disease in the United States each year.¹²

Xylitol has been demonstrated in repeated clinical studies to be very slowly metabolised. In fact, on the glycaemic index, which measures how quickly foods enter the bloodstream, sugar is rated at 100 and xylitol at just seven! Xylitol is a natural insulin stabiliser, therefore it causes none of the abrupt rises and falls that occur with sugar. In fact, it actually helps in stopping sugar and carbohydrate cravings. Foods sweetened with xylitol will not raise insulin levels. This makes it a perfect sweetener for people with diabetes as well as those wanting to lose weight. There is a growing consensus amongst anti-ageing researchers that maintaining low insulin levels is a key to a successful anti-ageing program.

Insulin resistance also plays a significant role in hormonal imbalances, including those that lead to breast cancer. High insulin levels increase the production of oestrogens, leading to an oestrogen-dominant condition, and also interfere with healthy ovarian function. Insulin resistance is a major cause of a growing hormonal problem called *polycystic ovarian syndrome* (PCOS). PCOS causes the ovaries to become anovulatory, which means that the normal cyclic production of oestrogen followed by progesterone either ceases or becomes dysfunctional. Insulin stimulates the ovaries to produce predominantly male hormones, which, in combination with higher insulin and glucose levels, increase weight-gain around the waist—a body type that is a risk factor for breast cancer. Signs that the body is being exposed to higher levels of the male hormones include acne, loss of head hair and an increase in body hair. Lowering insulin levels is crucial for not only treating PCOS but also resolving most other hormonal imbalances, including those leading to breast cancer.¹³

Dr John Lee, author of *What Your Doctor May Not Tell You About Breast Cancer*, explains the connection between insulin resistance and breast cancer:

On the glycaemic index, which measures how quickly foods enter the bloodstream, sugar is rated at 100 and xylitol at just seven!

"Overeating junk food makes you fat. Increased body fat and lack of exercise lead to insulin resistance. Insulin resistance leads to further craving of sugary carbohydrates to generate energy for the body. More insulin is released in response to increased carbohydrate intake, leading to more weight gain. More fat leads to more estrogens, which, in turn, lead to earlier breast development and menstruation. Earlier onset of menstruation leads to more ovulatory cycles and a greater lifetime exposure to oestrogens without adequate progesterone. A greater lifetime exposure to estrogens increases breast cancer risk.

"Simultaneously, increased consumption of simple carbohydrates, coupled with insulin resistance, leads to polycystic ovaries and lack of ovulation during menstrual cycles, resulting in excess production of androgens and estrogens, along with inadequate production of progesterone. Excessive estrogen production in the absence of progesterone production leads to estrogen dominance and increased breast cancer risk. Use of contraceptive hormones increases insulin resistance, exacerbating all the above problems."¹⁴

Using xylitol instead of sugar as well as reducing intake of high-glycaemic, refined carbohydrate foods helps to lower the risk not only of PCOS but also of ovarian cysts, fibroids, endometriosis, PMS, hot flushes, weight gain and depression.

The Safer Sweetener

Increased sugar consumption has bedevilled Western cultures with more and more health problems, many of which are putting an enormous strain on health care systems. Finally, there is an

answer to our collective prayers for something truly healthy that can also satisfy our sweet tooth. Over 1,500 scientific studies have found that the more you use xylitol, the more you can eliminate sugar cravings, reduce insulin levels and alkalise your body. It's a great aid on the way to good health and long life.

Imagine never having to feel those twinges of guilt when you bite into a xylitol-sweetened brownie. Or how about increasing your bone density while enjoying your favourite hot drink with two spoonfuls of xylitol crystals, or knowing that xylitol-sweetened chewing gum is preventing cavities and gum disease?

With xylitol, you can now have your sweet tooth and *treat* it, too!

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About the Author:

Sherrill Sellman is the author of the best-selling book, *Hormone Heresy: What Women Must Know About Their Hormones*. She can be contacted via her website, <http://www.sellman.com>, or by email at golight@earthlink.net. To subscribe to her monthly *HormoneWise* e-Digest, send an email to hwise@sellman.com.

AIRCRAFT INFRASOUND THE ESSENTIAL CAUSE OF DVT?

Analysis of published scientific and medical research suggests that infrasound from engine vibrations may be responsible for traveller's deep vein thrombosis.

by David Collier, BSc, DCH
© 2002

GPO Box 1755
Canberra, ACT 2600
Australia
Email: dc888@tpg.com.au

SIZE OF THE PROBLEM

Exposure to infrasound generated by jet engines is proposed as the essential cause of deep vein thrombosis (DVT) syndrome in airline passengers, temporal lobe atrophy in airline flight attendants, and air rage. According to the website <http://www.aviation-health.org>, of the 54 million passengers carried by European airlines on long-haul trips for an average of 9.4 hours, one million passengers, or around 5%, suffer from air-related DVT. On short-haul trips of 3–4 hours, it is 1–2 per cent. The UK House of Lords inquiry into this syndrome was not impressed with the evidence given by the owner of this website (which has nothing on infrasound), but the fact remains that these particular figures are consistent with those from other sources. The UK lobby group Victims of Air-Related DVT Association (VARDA) is linked to this website.

The Airhealth website, <http://www.airhealth.org>, has collated 21 medical reports leading to a conservative estimate of one million airline passengers diagnosed and treated in the USA each year, with 100,000 fatalities. Combining the European and American figures, we are likely to have greatly in excess of 100,000 fatalities per annum. Simple addition is not valid because many flights are between USA and Europe, hence shared by the two groups quoted. There are, of course, other parts of the world covered by airlines which would also add to these figures, so an overall world figure of 200,000 DVT fatalities per annum is possible. These are significant numbers which justify the attention now being given to this issue, and which fly in the face (*sic*) of those who suggest that the DVT risk is small. A present "failure to screen, assess, diagnose and/or prevent with pharmacological intervention the growing number of patients who are at risk for venous thromboembolism (VTE)" is admitted in Poponick and Bosker (2002). VTE includes DVT and pulmonary embolism (PE).

In a recent trial of 116 people, Scurr et al. (2001) showed that around 10% of long-haul (median 24 hours) passengers older than 50, but *selected to exclude other known risk factors*, developed "symptomless" DVT (small blood clots) after one return flight, returning to the UK within six weeks. This appears to be a significant finding (the general population is probably more at risk, compared with this specially selected sample), but it has not yet had an impact on the mind of the travelling public. These smaller blood clots are also capable of moving to the lungs, sometimes with fatal results. In this trial, all positive cases were treated with heparin and referred to their GPs.

There are two class-actions in progress: one involving Collins Solicitors, working with VARDA in the UK on a A\$55 million case against several airlines, alleging that the airlines did not warn passengers of the risks of developing DVT; the other involving Slater & Gordon in Australia, suing QANTAS, BA, KLM and the Australian air safety body CASA on the same basis, as at July 2001.

The website <http://www.flyana.com> *inter alia* provides professional insight into how airline passenger health has been compromised by commercial or economic considerations in recent years.

STUDIES IN PROGRESS

The BEST (Business class vs Economy Syndrome as a cause of Thrombosis) study was undertaken between 9 April and 9 May 2002, and involving Dr Alberto Smith of King's College, London, the University of Witwatersrand in South Africa and South

African Airways. It aimed at including 1,000 passengers and reporting before the end of 2002 (email best-study@kcl.ac.uk).

The Australian Department of Health is said to be examining 10,000 medical records in collaboration with the University of Western Australia and the Australian Department of Immigration and Multicultural Affairs. Preliminary results were expected to be available by August 2002. This was reported in the *Times* of London on 4 April 2002; perhaps this is the "travel" study referred to in Anon. (2002). This relatively inexpensive study has evidently taken the place of what was to be the world's biggest (three-year, A\$1.7 million) study starting in 2001, involving Dr Ross Baker of the Australasian Society of Thrombosis and Hemostasis (ASTH) and Dr Paul Bates of the School of Aviation Medicine at Griffith University in Queensland. It seems there was surprise and disappointment amongst the 35-strong research team when the Deputy Prime Minister (i.e., the Transport Minister) chose not to fund this previously well-advertised Australian study. One doctor commented in the media that the smaller study was "useless".

MEDICAL EVIDENCE

According to James H. Morrissey, Professor of Biochemistry at the University of Illinois College of Medicine: "The causes of DVT in general, not to mention specific types, are not well understood. Repetitive prolonged vibration is a well-documented risk factor for peripheral thrombotic disease" (personal communication, 27 July 2001).

Bendz et al. (1999) showed that an air pressure change from sea level to 2,000 metres over 5 to 10 minutes in a hypobaric chamber (designed to simulate what actually happens in an airplane after take-off) was associated with activation of the tissue factor pathway, which is primary in the blood clotting process. He attributed this to hypoxia, but did not exclude other possible mechanisms. However, he measured only a 5% decrease in oxygen saturation levels (from 98.4% to 93.4%) over two hours. Further, he found that factor VIIa activity increased most rapidly over the first 30 minutes of the experiment; blood samples were not taken at lesser intervals. It is suggested that physical (barometric or infrasonic) cellular trauma is actually responsible for these findings—something that most medical researchers, at least in the West, appear not to have considered.

There is evidence that infrasound can disrupt cellular organelles including the nucleus: e.g., Gabovich (1979); Nekhoroshev and Glinchikov (1992), who found irreversible damage to hepatocytes at 8 Hz and 16 Hz; and Silva et al. (1996). Stepanian et al. (2000) found changes in properties of water and a DNA solution exposed to vibration at specific frequencies of 4 Hz and 10 Hz, but not at higher frequencies. Low-frequency noise exposure can change epithelial histology in rats (personal communication with Alves-Pereira, 2002).

Populations living at high altitude are not hypoxic and do not have increased incidence of venous thromboembolism (VTE), according to Kesteven and Robinson (2000); therefore, a

dynamic air pressure change appears to be what is important.

Cerebral thrombosis "at altitude" was discussed by Song et al. (1986) in the aviation medicine context. Thrombosis "at mountain altitudes" was reported by Cucinell and Pitts (1987) in the same context. Deep venous thrombosis (i.e., DVT syndrome) was reported "in the military pilot" by Steinhauer and Stewart (1989). There is an obvious linkage between these papers, including Bendz et al. (1999): they all involve a change to a lower air pressure, aircraft and blood coagulation. Only Bendz et al. seem to have realised and demonstrated that a relatively rapid change in air pressure, outside that which our species has generally experienced in biological evolution and outside that which can be realised through individual locomotion, is significant. Exposure to low-frequency noise/vibration was apparently not a factor in the Bendz et al. experiment, except in the barometric frequency range of infrasound, but it may well have been a factor in the other results reported.

There is an important, though it seems not well known, body of Eastern Bloc medical research supportive of the thesis that exposure to infrasound *inter alia* causes blood coagulation: e.g., Mikhailova (1971); Polanowska and Cierniewski (1987); Serikova et al. (1977); Svidovy et al. (1985); Tropnikova (1990); and Vasilev (1999). Polanowska mentions "intense infrasounds from arc furnaces"; serotonin levels mentioned in Tropnikova are widely accepted as related to cellular trauma; and

changes in blood vessels as mentioned in Vasilev are one part of Virchow's triad of factors leading to blood coagulation. These papers were not available *in toto* and, as far as is known, have not been translated into English. Their titles and in some cases abstracts are at least highly suggestive, including that some of these countries are years ahead of the West in this area of (occupational) health and safety.

There are guidelines or regulations specific to occupational infrasound exposure in Denmark, Norway, Poland

and Russia that are not referenced in this article.

VIBRO-ACOUSTIC DISEASE

Twenty years of research into vibro-acoustic disease (VAD)—coincidentally in aviation personnel—by Castelo Branco et al. (1999) has now defined a series of syndromes which include the cardiorespiratory system, neurological and psychological disorders including spontaneous rage reactions (hence "air rage") and immunological changes. This work defines VAD as the consequence of occupational exposure to high-amplitude, low-frequency noise for 10 years or more, although some symptoms are evident after one year. It has for the first time established the reality of insidious systemic extra-aural adverse health effects of exposure to low-frequency noise.

In further reference to "air rage", it is already known that infrasound can entrain brainwaves (which are in the infrasonic frequency range), as can strobe light and low-frequency electromagnetic radiation. We can now appreciate the wisdom in the old saying about what kind of noise annoys an oyster: the

There is an important, though it seems not well known, body of Eastern Bloc medical research supportive of the thesis that exposure to infrasound causes blood coagulation.

similar-sounding words "noise" and "annoys" are perhaps of common origin.

VAD represents a paradigm shift in our understanding, with immense social and economic implications touched on in Alves-Pereira and Castelo Branco (2000). All present noise legislation, except as mentioned above, erroneously assumes that noise only affects the ear. I quote from their paper: "All the above information must be made public. It is no longer acceptable that individuals have their lives destroyed because of excessive low frequency noise exposure" and "This raises the issue (of VAD) to the domain of Public Health issues".

In the 1980s, this Portuguese team studied blood coagulation parameters in aviation technicians and found hypercoagulability. More recently, a paper was presented by them at the Aerospace Medical Association 2000 Annual Meeting, demonstrating that "Hypercoagulability exists in airline pilots after a rest period, suggesting that flight fatigue includes this state of the blood. Related blood parameters were proportional to logged flight hours and not to age. Other authors, e.g., Biondi et al., have said the same" (pers. comm., Alves-Pereira, 2002). It is important to note that adverse health effects of exposure to low-frequency noise are evidently cumulative.

It has been suggested that DVT syndrome in airline passengers is merely a consequence of the last straw in a lifetime's exposure to low-frequency noise from all sources including ground transport and heavy industry (pers. comm., Alves-Pereira, 2002). As against this, people in their teens or 20s also develop air travel-related DVT syndrome; but this is the group now favouring high-powered sub-woofers in car audio systems as well as loud dance music with a strong low-frequency component at nightclubs.

Many years' exposure time is evidently not necessary for traveller's DVT syndrome, given the above information—remembering that some people develop small or "silent" blood clots after only one flight (Scurr et al., 2001), and also remembering what was shown by Bendz et al., i.e., an immediate physiological effect (tissue factor pathway activation) of an artificial or rapid air pressure decrease.

OTHER ADVERSE EFFECTS OF INFRASOUND

Infrasound is, in effect, a pulsed or repeated, barometrically rapid, "low/high" air pressure change or oscillation at a rate less than 20 times per second and hence inaudible. It is reasonable to suppose that exposure to infrasound can also activate the human tissue factor pathway and thus the blood-clotting process, as clearly indicated in the medical research already referenced.

Infrasound is therefore proposed as the essential human health problem in aircraft, and is a common factor in all of the adverse health events discussed in this article and in the Eastern Bloc medical research mentioned previously.

Temporal lobe atrophy in female flight attendants has been reported by Cho (2001). He attributes it to jet lag. However, the neurological trauma he reports is apparently consistent with that reported by Castelo Branco et al. (1999) and attributed therein to

occupational exposure to low-frequency noise. It is suggested that this syndrome relates essentially to prolonged exposure to infrasound/vibration in aircraft, and not to time zone confusion.

An excess of cases of pulmonary embolism (PE) during the London Blitz, discussed by Milne (1992), is therein attributed to immobility in cramped conditions. This has been seized upon by contemporary commentators to "explain" DVT syndrome in airline passengers and other travellers, but this ignores the air pressure wave(s), i.e., *overpressure*, from bomb explosions—a more likely primary cause of PE in light of the research collated in this article. Defence forces in Russia and Australia are now known to be interested in adverse health effects of exposure to overpressure from artillery.

I am not aware of any unambiguous medical evidence linking traveller's DVT solely with immobility. The "sitting down" or "immobility" theory is quite unconvincing, given that millions sit, squat or lie down all over the world, day after day, without ill effect—including office workers, individuals in old people's homes, people in a coma, etc. No doubt immobility is a contributing factor in certain individuals, as are, clearly, genetic factors. But those airline flight attendants who have reportedly suffered DVT (and temporal lobe atrophy) are relatively mobile compared with most passengers.

There is an association between age and increased incidence of non-specific DVT in the general population (which may well be due to longer-term exposure to low-frequency noise), but this does not seem to be so with traveller's DVT: a number of cases in young athletes have been reported. Divers—a group already stressed by relatively rapid air or water pressure changes—appear to be particularly vulnerable to this syndrome, too.

As for the "fear of flying" theory proposed in the UK in January 2002 by Peter Hughes of Hughes DVT Research (the inventor of compression stockings for air travellers) and receiving some publicity, this can be regarded as

scraping the bottom of the barrel in an attempt to avoid the more obvious implications of sitting for extended periods of time in the midst of thunderous noise, even if transformed into inaudibility. Newton's second law of thermodynamics (conservation of energy) still applies; such energy is not magically removed.

INFRASOUND IN AIRCRAFT: THE EVIDENCE

1. The contrail (the evidence of our eyes). In atomic physics, a cloud chamber is used to detect and display the tracks of charged particles. Such a device is a minuscule copy of the sky above, in which we can all see that a jet plane leaves a contrail which is not linear but is like a regular string of beads in still air, or like a fishbone where there is a crosswind. This display is more or less affected by atmospheric turbulence, but the effect in still air is unmistakable and undeniable, insofar as it provides a graphic display of an infrasonic pulsation from the engines which can be timed visually at several pulses per second.

2. The acoustic frequency spectrum emitted by jet engines (the evidence of our ears). Our ears tell us it is a "thunderous"

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noise, also containing the shrill notes of higher frequencies. Thunder is low-frequency sound, extending well into the infrasonic (inaudible) frequency domain. Various papers have been published indicating just this, including Petrovic (1980), Kehoe et al. (1994), Baklanov (2000), Scholz (2000), Alves-Pereira et al. (2001) and Smith (2002).

The title of the Petrovic paper is apparently self-explanatory, though it was not available. Kehoe et al. describe NASA ground vibration tests on a *Jetstar* passenger aircraft and an FA-18 fighter jet which identified vibratory modes of basic structures such as wings and fuselage in the range of 5–18 Hz. If the fuselage of a passenger jet is flexing at 11 Hz, even at small amplitude, what is the effect on the passengers? Note that this frequency is close to the theoretical air pressure (infrasonic) resonance in an airplane fuselage of length 15 metres. The exact dimensions of the small-to medium-sized *Jetstar* airplanes are not known to this author.

Baklanov writes: "High limit of engine behaviour as a solid body is in the range 25–30 Hz for a number of *Tupolev* trunk-route jet aircraft. Disturbances in the engine gas flow duct are one source of noise." Scholz writes. "Exhaust systems are one of the most important noise sources in modern turbine power plants. In some cases acoustic resonance can occur, producing very high sound-pressure levels, usually at low frequencies."

Alves-Pereira et al. measured infrasound in pilots' cabins of commercial aircraft, this apparently being generated by airflow impact on leading edges of the airplane, especially at lower altitudes. Smith found low-frequency noise levels between 5 Hz and 250 Hz sufficient to resonate aircrew upper torsos in several military aircraft -and amplitudes were higher aft of the engine exhaust outlet.

3. Random vibration excitation. "Aircraft, missiles and rockets are subjected to random vibration excitation. This is due to the extreme turbulence of jet exhaust downstream of the jet and rocket engines, and aerodynamic buffeting," according to remarks on the Aircraft Design Inc. website in 2001.

PROPOSED MECHANISM: Infrasonic Resonance of Passenger Compartment

The aircraft's engines are connected to a resonant acoustic chamber, the passenger compartment, whose physical dimensions imply an infrasonic (inaudible) resonance, but in which items such as loose plastic window blinds may rattle.

An attached or coupled source of noise/vibration at 5–250 Hz is perfectly capable of resonating a large enclosure at an inaudible frequency—for example, 6–8 Hz. An air-filled cylinder of 30 metres in length resonates at around 6 Hz, in theory, like a giant organ pipe; lesser lengths resonate at higher frequencies.

Acoustic resonance has a considerable amplifying effect on the noise/vibration source. Noise/vibration was reportedly sufficiently intense in early jet planes as to cause structural failure.

Apart from the evidence enumerated above, especially Smith (2002), data on infrasound in jet planes appears to be scarce or unavailable. It is, of course, true that there has been no general requirement to measure infrasound in aircraft to date, given an exclusive regulatory focus on audible sound above 20 Hz in frequency. Infrasound was apparently not found at significant levels in passenger compartments of commercial jet planes by Alves-Pereira et al. (2001), suggesting no compartment resonance. However, these measurements were not continuous, thus intermittent air pressure oscillation of significant amplitude may simply have been missed. Perhaps these non-resonant levels are sufficient to account for the three syndromes in airline passengers and crew mentioned in this article; alternatively, compartment resonance may be intermittent. The Swedish Defence Materiel Administration collected references in 1985–86 which are said to include papers on infrasound in airplanes; this collection was not available to the author.

It is suggested that the phenomenon of passenger compartment infrasonic resonance, if present, may be *intermittent*, perhaps dependent on particular engine speed or atmospheric conditions. This is consistent with findings by Winck et al. (2002) of an average 3.1 "rapid dips" in blood oxygen levels of up to 10 per cent in airline passengers on long flights. In short flights, blood oxygen levels fell by only three per cent. This suggests a cumulative response in the longer flights, presumably not explained by reduced static cabin air pressure or quality.

Findings mentioned previously of hypercoagulability in pilots proportional to logged flight hours also indicate a cumulative effect, in that case of infrasound from air impact on aircraft leading edges.

As already demonstrated by Bendz et al., there is an immediate effect on blood chemistry of exposure to an air pressure decrease. It is suggested that infrasound exposure has the same effect; also, adverse health effects of exposure to infrasound are believed to be cumulative.

Winck et al. apparently did not measure air pressure or related changes during the flights in question, though decreased cabin air pressure in airplanes is mentioned as the reason for their research. Significantly, they did find different blood oxygen levels when people were tested in different parts of the airplane, e.g., the toilets, which would have similar static air pressure, suggesting that some other factor is involved, perhaps air pressure oscillation at different rates, amplitudes or times related to dimensional or other characteristics of the space or enclosure. Rapid "dips" in blood oxygen levels were not found at ground level (personal communication, Winck, 2002).

The French company ONERA is researching aircraft cabin noise generated by vibration from attached jet engines, but with an apparent focus on audible noise above 20 Hz. There is currently an ongoing international effort to quieten passenger jet planes, including a focus on infrasonic engine noise at NASA (e.g., the Advanced Subsonic Technology Noise Reduction Program). These efforts appear to have achieved not much more

The aircraft's engines are connected to a resonant acoustic chamber, the passenger compartment, whose physical dimensions imply an infrasonic (inaudible) resonance, but in which items such as loose plastic window blinds may rattle.

than a 3 dB reduction in low-frequency noise to date. There is obvious low-frequency vibration at take-off and landing, caused by low-altitude turbulence and/or contact with the runway. But inaudible air pressure waves or vibrations are here suggested to be present (constantly or intermittently) at cruising speed and altitude, and generated primarily from the engines.

RESEARCH RECOMMENDATIONS

In light of the information presented here, an extensive survey of infrasound in passenger jet planes is the obvious thing to do next, as a low-cost priority. Measurements should be taken over the entire flight of various models (and ages) of passenger jet planes, including at take-off and landing. Professional infrasound meters are now commercially available and these, together with laptop computers, are all that is required.

These measurements should be *unweighted*, given that at 25 Hz the dB(A) weighting required by existing noise legislation underrates the acoustic energy at this frequency by approximately 43 dB, or more than 99 per cent. At infrasonic frequencies below 20 Hz, the dB(A) weighting required by existing legislation can result in an indication of much less than one per cent of the actual energy present!

It seems that many people are not aware of this fact as it applies to sound and infrasound level measurement: the situation has arisen due to the erroneous belief that noise impacts only on the ear and hearing, thus the legislation has been tailored exactly to its acoustic response. However, the response of the human ear is but a small window into the total range of acoustic energies.

INFRASOUND WEAPONRY AND DEFENCE

Human body resonance has been proposed to explain the potentially lethal effect of high-amplitude infrasound when used as a weapon. In Smith's work we have a strong indication that infrasound is potentially lethal, if this were needed in a situation where at least one US manufacturer (American Technology Corporation in association with Bath Iron Works) has announced (as at April 10, 2002) a contract for an acoustic weapon.

Some years ago, an article in *New Scientist* magazine described the *modus operandi* of an acoustic crowd-control device as initiating epileptic fits in members of the crowd. This is consistent with VAD findings and with other evidence. It may be that some information on adverse health effects of exposure to infrasound is presently classified.

Shurygin et al. (1975) have evidently investigated a specific effect of vibration and noise on military *matériel* squads of the Russian Army. Petrovic (1981) apparently investigated infrasound and ultrasound in vehicles of the Yugoslav Army. Smith (2002) evidently worked with US aircraft and personnel.

The Russian Army is apparently researching adverse health effects of exposure to overpressure from artillery (Belov, 2000). The Australian Army now has an interest in adverse occupational health effects of low-frequency noise or overpressure exposure (personal communication with Lt Colonel Nick Rowntree, 2002).

According to acoustic engineer Sean Moch, who has worked with the Royal Air Force on a contract basis: "There has been a large amount of work on effects of infrasound done by the MoD in the UK, especially with regard to ground-operating personnel in the RAF who have to work near afterburning aircraft which have a phenomenal amount of infrasound. I have seen lead suits for aircrew which didn't look very comfortable" (personal communication, 2001).

We may ask: if the RAF requires its aircrew to be protected by lead suits, what is the risk for commercial jet plane crew and passengers, even without afterburners?

Commercial aircraft are lined with soundproofing material, evidently effective against entry of acoustic noise frequencies from the engines. But such materials cannot prevent the entry of lower-frequency, longer-wavelength noise, especially inaudible infrasound. Jet engines of commercial aircraft are already covered with lead or lead composite shielding to limit low-frequency noise transmission. The logical next step of lining the passenger cabin with lead shielding has obvious limitations in an aircraft.

It is known that some new metal-impregnated materials have been designed to absorb infrasound; a team at the University of Hong Kong has done such work. Lead or lead composite acoustic shielding has been used around jet engines for many years—but you cannot enclose the inlet or the exhaust outlet.

The US Office of Naval Research (an aviation centre) at Pensacola, Florida, is developing acoustic materials to attenuate low-frequency noise. In fact, they have managed a 30 dB attenuation at 80 Hz (pers.

comm., Alves-Pereira, 2002). It is not known if this material is suitable for use in aircraft or if it is effective against infrasound, which by definition is below 20 Hz.

INFRASOUND IN OTHER TRANSPORT MODES

Submarines are also large acoustic chambers as are surface ships enclosing various large chambers.

Railway trains and buses also consist of large acoustic chambers, and with windows open would generate an infrasonic Helmholtz chamber resonance of significant amplitude. Inhabitants of buildings near to railway lines are said to feel upper body vibration when a train passes. In some metropolitan buses, the large side trim panels flap visibly at a low frequency, especially when the engine is labouring in "Drive" while stopped at a traffic light. Travel on these buses has typically led to an epileptic fit in one susceptible individual (pers. comm. with carer/healer Dawn Morgan, 2002).

In motor cars, there is a "buffeting" effect at speed with a window open; and infrasound at a level of 90 dB has been measured in a car at cruising speed with windows closed (pers. comm., Alves-Pereira, 2002).

The Royal Automobile Club of the UK announced in August 2002 that some drivers are susceptible to DVT syndrome, in particular those already at higher risk due to age, pregnancy, etc., and those driving for more than four hours at a stretch.

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OUR CHOICE FOR THE FUTURE

There is little doubt in my mind that passenger jet planes, including proposed supersonic models, are already obsolete due to their inherent and unavoidable—if not presently appreciated or advertised—health hazards.

In Tofflerian Third Wave terms, it is surely significant that there is now increased manufacturing activity in the area of dirigibles (which do not use the jet engine), presently for transport of goods and as aerial cranes. They used to carry passengers regularly across the Atlantic and the *Graf Zeppelin* circumnavigated the world in 1929, covering 22,000 miles in just over 20 days with 20 passengers, mail and freight. The 1937 *Hindenburg* disaster, so called, was apparently due at least in part to the unknown use of an inflammable fabric-doping compound rather than to the flammability of hydrogen. There is some evidence of sabotage via an incendiary device; arrival in the USA was delayed by headwinds and all would otherwise have disembarked safely. With hindsight, we can also see that the choice of airplanes over dirigibles was driven by military requirements rather than the desires or needs of passengers. The experience of air travel by dirigible was one of stability and safety prior to 1937: you could shower and sleep on board in comfort unimaginable to today's jet passengers.

The NASA vision for the future of aviation outlined in a statement given to the US House of Representatives on 7 March 2002 is one in which the gas turbine engine is replaced by fuel cells

(presumably with electric motors), and the only sound is that of "air flowing over the fuselage". Unfortunately, even this solution would not remove infrasound in pilots' cabins generated by airflow impact on leading edges.

There is a clear choice facing responsible individuals and authorities: summon the courage to face this issue and deal with it now, or continue to avoid it and risk even larger compensation claims and financial disruption in future, more importantly with unnecessary fatalities—possibly including one's own.

There is little doubt in my mind that passenger jet planes, including proposed supersonic models, are already obsolete due to their inherent and unavoidable—if not presently appreciated or advertised—health hazards.

About the Author:

David Collier, BSc, DCH, is a retired stored products entomologist and science administrator; a sometime clinical hypnotherapist, specialised kinesiologist, counsellor and practitioner of *qi gong* and *sahaja* yoga; and now a medium for spiritual healing and chakra surgery. Many years ago he cured himself of a supposedly "incurable" autoimmune disease.

He is the inventor of the Extraphone, a device which

extends human hearing into infrasonic and ultrasonic frequency domains, and is focus/facilitator for The Sanctuary, a community and centre for world peace, healing and sustainable technologies to be established near Canberra, Australia.

He is presently looking for start-up capital for the electronics manufacturing and marketing business which is to underwrite The Sanctuary. David Collier can be contacted c/- GPO Box 1755, Canberra, ACT 2600, Australia, or via email at dc888@tpg.com.au.

Author's Notes:

- This article is not a comprehensive scientific review, given that many papers were not available for detailed study, and methodology was not examined in detail. It is intended to summarise the more significant available evidence around this issue, albeit circumstantial in some cases. It is also intended to assist responsible parties to examine the issue properly and then deal with it for the greater good of all.
- This article has evolved over time to explain matters in more detail and to include recommendations for particular action, given apparent widespread difficulty in comprehending the issue and in knowing what steps to take to deal with it.
- An officer of the International Civil Aviation Organisation has now submitted a version of this article to the Scientific Executive Committee of the WHO/ICAO WRIGHT Project (see Anon., 2002).

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NEUROPEPTIDES, EMOTIONS AND THE BODYMIND

Dr Candace Pert's research, showing the action of neuropeptides and their receptors in storing emotions and memories, helps explain the therapeutic value of various forms of bodywork.

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Science Communication Services
Canberra, ACT
Australia

Moshe Feldenkrais was a genius way ahead of his time when he wrote in 1964: "My contention is that the unity of mind and body is an objective reality, that they are not entities related to each other in one fashion or another, but an inseparable whole while functioning. To put the point more clearly I contend that a brain without motor functions could not think, or at least that the continuity of mental functions is assured by corresponding motor functions."

Feldenkrais went on to say that we have no sensation of the inner workings of the central nervous system, but feel their manifestation only as far as sensations from the body provoke our awareness. This is the state of consciousness! He concluded that "...the state of the [cerebral] cortex is directly and legibly visible on the periphery through the attitude, posture and muscular configuration, which are all connected. Any change in the nervous system translates itself clearly through a change of attitude, posture and muscular configuration. They are not two states, but two aspects of the same state."

This hypothetical stance taken by Feldenkrais—that the mind and body are one—was substantiated by the practical work he had been exploring for 30 years to assist people to move more easily. It was shared by a pioneering group of thinker-explorers of the 20th century—among them F. Matthias Alexander, Ida Rolf, Gerda Alexander and Elsa Gindler—who were interested in finding practical ways of furthering human development.

However, the most significant breakthrough in our scientific understanding of the body-mind did not come until the early 1970s, when Dr Candace Pert discovered and measured the opiate receptor and thus launched her career as a distinguished bench scientist. Before that, a receptor was mostly an idea: a hypothetical site believed to be located in the cells of all living things. The scientists who most needed to believe in receptors were pharmacologists, because it was the only way they knew to explain the action of drugs.

Since her first discovery, Dr Pert and her colleagues have gone on to specify, measure and map a wide variety of molecules (receptors) embedded in the membranes of neurons and other cells in the body (e.g., muscle, lung, gut, glandular and immune system cells), whose functions are different from other receptors in cell membranes. When all are discovered, Pert expects there will be around 300 neuropeptides, all with different actions on individual cells and on overall behaviour.

It would not be an exaggeration to say that the scientists have discovered a "second nervous system", equally as important as the first. Neuroscience had long been focused on the concept of the nervous system as an electrical network with neurotransmitters at synapses allowing electrical impulses to pass from neuron to neuron. Dr Pert now says that only about 2% of communication within the brain occurs via synapses and 98% by information molecules such as hormones and neuropeptides, which act over longer distances.

The binding of an information molecule (ligand) to a receptor is like a key fitting into a keyhole. Both molecules are vibrating, and there seems to be an attractive force between the receptor and its appropriate ligand (usually a neuropeptide). When the two fit together, information enters the cell and directs its activities by initiating a cascade of biochemical events. The cell may begin any number of activities, e.g., building new proteins, opening and closing ion channels, or division. Each cell may have millions of receptors on its surface, with hundreds of thousands of the same type. The activity of the cell and its functional relationship with the rest of the body depends on the density of particular receptors on the cell surface and on how many of these contain neuropeptides at a particular time. On a macro scale, these minute physiological phenomena at the cellular level can translate into large changes in behaviour, physical activity and even mood.

MOLECULES OF EMOTION

Dr Pert has called the neuropeptides and their receptors "molecules of emotion". The information-carrying peptide molecules circulate freely about the body in the cerebrospinal fluid, blood and other extracellular fluids, and their action at specific receptor sites on cells connects not only various organs and biological processes but also mental and physical states. When our emotions cause us to go red in the face or to sweat, these effects are not responses to messages from the brain. Rather, they are produced directly at the cellular level when neuropeptides bind to their receptors. This is what makes both neuropeptides and their receptors "molecules of emotion". Different cells and tissues in the body produce greater or lesser amounts of particular peptides. A classic example of tissues that produce peptides that cause certain strong feelings and emotions would be the ovaries and testes.

The natural substances that bind to the opiate receptors are enkephalins or endorphins (depending on whether you are British or American). These are natural opiates and are shot out into the circulation after severe trauma, such as burns, to deaden the pain immediately. They are produced in smaller amounts in athletes, e.g., the so-called "runner's high" experienced by marathon runners. Opiates are also circulating freely when we are in a state of well-being, or in a rare state of sheer bliss!

This constant, changing flow of molecular information throughout the body occurs mainly outside our conscious awareness. We become aware of something happening only when we feel moods and emotions, but this is only a fraction of the activity going on—which helps explain why the source of psychosomatic ailments such as irritable colon are attributed to the subconscious mind.

In establishing the biomolecular basis for emotions, Pert demonstrated convincingly—in a way that no one has done before—that body and mind are one. An important spin-off of the research is the provision of a basis for answering the question, "How is it that some bodywork modalities are able to be of such enormous therapeutic value?"

The answer to the debate that has been raging for many years—whether emotions, drives and feelings originate in the brain or in other tissues of the body—lies in understanding how the brain and body interact to produce both visceral (or involuntary) physiological states and the experience of emotions. According to Eckhart Tolle, emotion arises at the place where mind and body meet, and could be defined as the body's reaction to the mind.

The research of Dr Candace Pert and her colleagues shows that neuropeptide interactions take place in both directions. Every change in the physiological state is accompanied by a change in the mental emotional state, conscious or unconscious; and conversely, every change in the emotional state is accompanied by a change in the physiological state. The regulator of this process—the place where mind and body meet—is known by some as the *limbic system*.

THE LIMBIC SYSTEM

The limbic system or "emotional brain" is that part of the brain concerned with emotions and memory response. Although there is not complete agreement on the definition and structure of the

limbic system, it is generally considered that its main parts are paired structures located medially in the forebrain. It encircles the upper part of the brain stem, and lies strategically between the lower (brain stem) and the higher (cognitive) regions of the brain. It is the area through which all sensory information coming up through the spinal cord enters the brain, and through which all motor commands flow back downward. It is also the centre through which information from all the special sense organs of the cranium enters the brain. The more important clusters of neurons (called *nuclei*) generally considered to be part of the limbic system include the amygdala, cingulate gyrus, hippocampus and the hypothalamus. The two parts especially concerned with emotions are the amygdala and the cingulate gyrus.

Extensive connections between the limbic system and lower and higher brain regions allow the system to integrate and respond to a wide variety of environmental stimuli; e.g., the amygdala in the anterior temporal lobe of each cerebral hemisphere receives input from sensory areas and sends messages to the rest of the limbic system to produce emotional arousal. This activity cascades into the hypothalamus and, from there, it is connected through dense nerve and capillary networks to the pituitary gland and, in turn, to the autonomic nervous system. (The autonomic

nervous system is that part of the nervous system that regulates involuntary function, including activity of cardiac muscle, smooth muscle of the gut and bronchioles, and glandular secretion. It has two divisions: the sympathetic nervous system, which, among other things, accelerates heart rate, constricts blood vessels, raises blood pressure and is concerned in the "flight or fight" mechanism; and its opposite number, the parasympathetic nervous system, which slows heart rate, increases intestinal peristalsis and gland activity, relaxes sphincters, etc.)

Because the hypothalamus is both a command centre for the autonomic nervous system and a centre for emotional response, it is not surprising that emotional stress or overload can lead to psychosomatic illness. Parts of the limbic system are also closely connected with the (cognitive) prefrontal lobes of the cerebral hemispheres, so it is also not surprising that there is an intimate relationship between our thoughts (mediated by the cognitive brain) and our feelings (mediated by the emotional brain). The two-way communication between cognitive and emotional regions explains why sometimes emotions override logic, and why sometimes reason overrides the desire to express emotions.

The limbic system or emotional brain has the densest collection of neuropeptide bonding sites in the brain. Neurons in these areas can manufacture, send and receive every one of the neuropeptides now known. Each neuron can display millions of neuropeptide receptors on its membrane at any given time and can change the populations of specific types of receptors displayed, according to either previous stimuli or current needs.

Concentrations of neuropeptide receptors are especially dense in areas where sensory information enters the brain, and where motor connections are distributed to both skeletal and autonomic muscular systems. Our deepest convictions—those that unconsciously structure all of our individual experience and behaviour—are products of the limbic system.

The blood delivers neuropeptides secreted by the brain to their

The limbic system or emotional brain has the densest collection of neuropeptide bonding sites in the brain.

target cells in different and distant tissues, and carries neuropeptides secreted by these tissues to other targets and back to the brain. The limbic system is where chemical information from its neurons and from the blood (matter) connects with electrical nerve impulses in the brain (mind), and where the true union between mind and matter takes place.

A cell or organ in the body requires some sort of response to its activity to coordinate it with other systems. It synthesises and secretes appropriate messenger neuropeptides, which are carried in the blood to the limbic system. These bond to receptors on specific neurons, where they alter the neurons' internal chemical activity, neuropeptide secretion and pattern of activity in the brain. The original cell or organ is then answered, both by neuropeptides from the brain delivered by the blood and by nerve impulses directly through the nervous system. Both responses are then integrated by the cell or organ prior to its next response. Thus, the question is not one of mind versus matter, but of both being part of a whole. Physical events are translated into feeling states, and feeling states are translated into physical responses of all kinds, conscious and unconscious. Candace Pert observes: "Emotions are at the nexus between matter and mind, going back and forth between the two and influencing both."

HABITUAL MUSCULAR PATTERNS

One of the major impacts of shifting emotions and their underlying neuropeptide chemistry is on our muscles. Without conscious awareness, everything we do with our muscles relies on habit patterns. As well as performing numerous motor functions, muscles are themselves sense organs, contributing enormously to our body image and sense of the environment. Changes in feeling-states create changes in motor performance. As Dr Deane Juhan says: "Our emotions are constantly leaking into all our muscular activities, and are either enhancing or debilitating our performance on every level." We can suppress large portions of those feelings, which will disrupt that awareness and regulation; or we can fixate on patterns of behaviour that favour the dominance of one feeling state over all the others, which limits our available responses and strategies for adapting.

As well as affecting our movements and behaviour, emotions become set in our shape or posture, as Stanley Keleman demonstrated so elegantly in 1985. He says that uprightness, the mark of human development, is altered by insults, challenges and assaults, and that one's shape is changed by one's emotional history. Keleman wrote: "Insults and shocks, stress and distress are imprinted on every cell, creating a somatic, emotional, psychological image that is enmeshed with all the events of life." He believes that distress creates contractions or weaknesses that distort "pulsation", and that somatic education brings people into the living foundations of existence—the "pulsatory waves" that generate excitement, feeling, thinking and action.

Since we now know that emotional expression is always tied to a specific flow of neuropeptides, it is possible that the chronic suppression of emotions can result in massive disturbance of the psychosomatic network, leading to immunodeficiency and disease.

Dr Pert believes that there is no state of mind that is not

mimicked by the state of the immune system, that repressed emotions are stored in the body—the unconscious mind—by means of neuropeptides, and that memories are stored in neuropeptide receptors.

INSIGHTS FOR EFFECTIVE BODYWORK

The neuropeptide system is highly variable and adaptable, using the language of emotions to generate all kinds of self-awareness and opportunities for self-regulation. Getting in conscious touch with tissues that are storing emotions in the form of combinations of neuropeptides, particularly muscles, and producing feelings that are healing are what effective bodywork is about. Pert's work offers scientific insight into how bodywork modalities such as Trager, body psychotherapy, bodymind centring, body transformation and craniosacral therapy accomplish their therapeutic effects, often by causing somatic-emotional release, and provides a framework for further improvement.

In the Trager approach, the practitioner enters a meditative state (or "hook-up", as coined by Dr Milton Trager) and invites the client to be in that state with him. Only when both are in this meditative state can the practitioner make suggestions to the client in the language of touch and can his message be adequately received. The idea of touch as a language is absolutely essential to understanding how the Trager approach can accomplish what it

does—how "hook-up", and everything that goes with it, can be transferred from one individual to another.

Hook-up is a very specific feeling, or "neuropeptide cocktail", characterised by very specific sensations—peace, lightness, agelessness, etc. The light, pleasurable shimmer of tissue creates the sensory foundation of the feeling state of hook-up, and the brain enters an alpha-brainwave state. Dr Trager said that hook-up neutralises the effects of chronic stress and restores the mind and the body to a condition of rest, repair, long-term

maintenance and relaxed awareness.

Dr Trager was very much against what he called "efforting". Effort causes tension, and tension causes pain and injury. In Trager, repetitive light, gentle and nonintrusive movements are used to facilitate the release of deep-seated mental and physical patterns, including emotional traumas. Like the Feldenkrais method, the Trager approach reaches the unconscious mind, rather than the body, to produce changes in the bodymind. Every touch, every movement, every gesture of the practitioner is intended to reach the mind.

Milton Trager said: "I am convinced that for every physical non-yielding condition, there is a psychic counterpart in the unconscious mind corresponding exactly to the degree of the physical manifestation. These patterns often develop in response to adverse circumstances such as accidents, surgery, illness, poor posture, emotional trauma, stresses of daily living, or poor movement habits. The purpose of my work is to break up these sensory and mental patterns which inhibit free movement and cause pain and disruption of normal function."

In the Trager approach, the feeling quality first enters the client's system as sensations. Sensations act as analogues for feelings and, according to Dr Juhan's interpretation of Candace Pert's work: "The shift from sensation to an emotional feeling quality is the transduction of a train of nerve impulses into a

Dr Pert believes that there is no state of mind that is not mimicked by the state of the immune system, that repressed emotions are stored in the body by means of neuropeptides, and that memories are stored in neuropeptide receptors.

reinforcing neuropeptide release and distribution. As the process continues, contacts imparted by the practitioner stimulate more and more peptide release that corresponds to the emotional quality projected by the quality of touch." Eventually the client ends up in a feeling state—a "neuropeptide bath"—that is more like that of the practitioner. According to Juhan, this feeling state is closely allied to Dr Benson's famous Relaxation Response.

It is not uncommon for profound emotions to be released in a physical way when specific body tissues storing emotions/memories are touched by the practitioner and send messages in the form of sensations to the unconscious mind of the client. New neuropeptide combinations formed as a result of these sensations freely circulate in the body, often resulting in overwhelming feelings. This would be equivalent to the specific state of consciousness incompatible with mindfulness and sometimes associated with the spontaneous release of strong emotions described by body-centred psychotherapist Ron Kurtz in 1990. The client feels intense involvement centred on the present experience, exhibits spontaneous physical activity and temporarily has a limited capacity to think or reason. A great deal of energy is released. The client may be totally overcome with emotion such as rage, sadness, love or overwhelming pain or loss. Such feelings come in waves, often interspersed with memories (often related to early childhood) and insights.

Kurtz stresses that therapy does not stop when the client experiences the emotional release; rather, it starts there. The therapist now helps the client understand and know what to do with the experience. She/he may do this by helping the client access memories associated with it, work with the feelings that link the experience to organising beliefs, and put it into words, study it and perhaps manipulate and reorganise it. This assists the client to access self-awareness, self-regulation and healing.

Dr Pert believes that the practical experience of bodywork bringing up strong emotions and memories is direct evidence that these are stored in body tissues and is, in fact, the major piece of therapeutic information gained from her work on neuropeptides. She is a self-confessed fan of bodywork, saying that people respond to touch in a surprising way, and that body-centred approaches can be effective where talk and other therapy are not. Research has shown that the ground state of a particular receptor reflects the history of its past and affects how information flows into and out of the cell. Every receptor "remembers" how often it has been stimulated and whether it has been under- or over-stimulated.

These discoveries have led Dr Pert to discard the old model—of the brain controlling the body—and dub the body the "sub-conscious mind". She says that emotional states are altered states of consciousness, and emotions are the link between the physical and mental realms. When stored or blocked emotions are released through touch or other physical methods, there is a clearing of our internal pathways, which we experience as energy.

BE AUTHENTIC!

According to Dr Pert, health is holistic, representing wholeness and integrity, and that while state of mind (e.g., negative thinking) probably has little or nothing to do with the aetiology of diseases

such as cancer, which she attributes largely to lifestyle factors and pollution, emotional integrity can help us fight disease. Since emotions function to unify us, they promote our integrity. It is important to let real, authentic emotions—including negative emotions such as anger—come out and be expressed. Dr Pert believes that this promotes the healing response more than anything else. When emotions are bottled up, they are literally building up pressure and may come out in an unconstructive way. She says we must learn what our true feelings are and not adopt unhealthy masks, such as false smiles.

Dr Pert regards stress as information overload—not only from the outside but also from within our body, when we are not sure which way to go. When we are stressed, we are literally becoming a waste dump for molecules of emotion. Her advice is to stop ignoring our bodies, stop living in our heads and get into movement. She says that movements of all kinds release and wash away substances that are pent-up and stored, which explains why exercise can be helpful for endogenous depression. Dr Pert advises us to be multimodal and enjoy an emotionally expressive life. Dancing, in particular, can be very effective therapy!

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About the Author:

Leigh Lehane, BVSc (Qld), PhD (Qld), MSc (Lond.), has been a lecturer/senior lecturer in pathology/toxicology at the Queensland Veterinary School, a science writer/editor, government veterinary officer, and toxicologist in the Therapeutic Goods Administration, Commonwealth Department of Health (drug evaluation). She now works as a science writer and massage therapist and is training to become a Feldenkrais practitioner.

Emotional states are altered states of consciousness, and emotions are the link between the physical and mental realms.

DEW PONDS, AIR WELLS AND FOG TRAPS

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Humans need to drink at least two quarts [just over two litres] of water daily to remain alive. If groundwater is not available, the atmosphere humidity can be condensed instead to provide our minimum requirements.

In 1993, Reginald E. Newell (of MIT) found 10 huge "atmospheric rivers" (five each in the northern and southern hemispheres) with typical flow rates of 165 million kilograms of water per second. These rivers of vapour are bands up to 480 miles wide and 4,800 miles long, about 1.9 miles above the Earth. They are the main means of transporting water from the equator. It should be possible to draw water from these rivers. The problem of accessing that height is not insurmountable, especially if the construction is done atop mountains.¹

The means of collecting atmospheric humidity is an ancient technology that has been largely ignored in modern times. The most impressive example of this science was discovered in 1900–03 during the excavation of Theodosia (a Byzantine city dating to about 500 BC).

Archaeologists found numerous pipes, about three inches in diameter, leading to wells and fountains in the city. The pipes were traced to a nearby hill and were found to originate from 13 piles of limestone, each about 40 feet tall and 100 feet square. This system of "air wells" produced as much as 14,000 gallons of water daily!

Dew Ponds

Dew ponds have existed since prehistoric times, but today the technology is nearly forgotten. A few unfailing dew ponds can still be found on the highest ridges of England's bleak Sussex Downs and on the Marlborough and Wiltshire Hills. Though far from any marshes, springs or streams, they always contain some water that condenses from the air during the night.

Arthur J. Hubbard described a dew pond in his book, *Neolithic Dew-Ponds and Cattleways* (1907):

"There is [in England] at least one wandering gang of men...who will construct for the modern farmer a pond which, in any suitable situation in a sufficiently dry soil, will always contains water. The water is not derived from springs or rainfall, and is speedily lost if even the smallest rivulet is allowed to flow into the pond.

"The gang of dew-pond makers commence operations by hollowing out the earth for a space far in excess of the apparent requirements of the proposed pond. They then thickly cover the whole of the hollow with a coating of dry straw. The straw in turn is covered by a layer of well-chosen, finely puddled clay, and the upper surface of the clay is then closely strewn with stones. Care has to be taken that the margin of the straw is effectively protected by clay. The pond will eventually become filled with water, the more rapidly the larger it is, even though no rain may fall.

"If such a structure is situated on the summit of a down, during the warmth of a summer day the earth will have stored a considerable amount of heat, while the pond, protected from this heat by the non-conductivity of the straw, is at the same time chilled by the process of evaporation from the puddled clay.

"The consequence is that during the night the warm air is condensed on the surface of the cold clay. As the condensation during the night is in excess of the evaporation during the day, the pond becomes, night by night, gradually filled. Theoretically, we may observe that during the day, the air being comparatively charged with moisture, evaporation is necessarily less than the precipitation during the night. In practice, it is found that the pond will constantly yield a supply of the purest water.

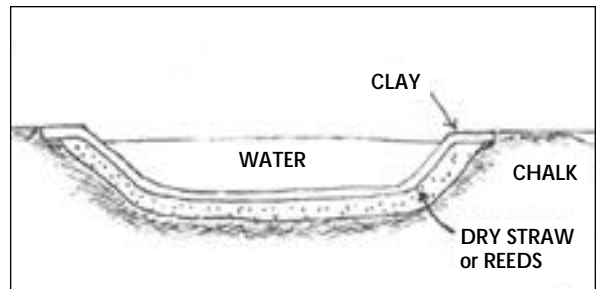


Figure 1: Dew Pond

"The dew pond will cease to attract the dew if the layer of straw should get wet, as it then becomes of the same temperature as the surrounding earth and ceases to be a non-conductor of heat. This practically always occurs if a spring is allowed to flow into the pond, or if the layer of clay (technically called the 'crust') is pierced."

Additional construction details were explained in *Scientific American* (May 1934):

"An essential feature of the dew pond is its impervious bottom, enabling it to retain all the water it gathers, except what is lost by evaporation, drunk by cattle or withdrawn by man. The mode of construction varies in some details. The bottom commonly consists of a layer of puddled chalk or clay, over which is strewn a layer of rubble to prevent perforation by the hoofs of animals. A layer of straw is often added, above or below the chalk or clay. The ponds may measure from 30 to 70 feet across, and the depth does not exceed three or four feet."²



Spiral Dew Pond, Oxtedde Bottom, Sussex, 1997 (Photo: Chris Drury)

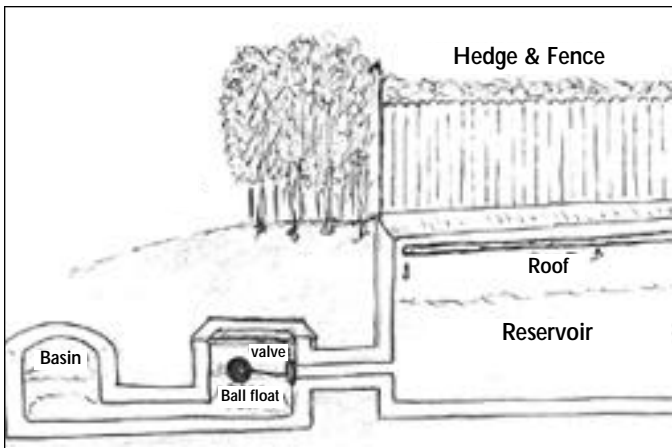


Figure 2: Russell's Dew Pond

Another form of dew pond was invented by S. B. Russell in the 1920s. It was described in *Popular Science* (September 1922):

"A dew reservoir 30 feet square will collect 24,000 gallons of water in a year, or an average of 120 gallons daily during the hot summer months and 50 gallons daily for the remainder of the year..."

"The Russell reservoir consists of a concrete cistern about 5 feet deep, with sloping concrete roof, above which is a protective fence of corrugated iron which aids in collecting and condensing vapor on the roof and prevents evaporation by the wind. The floor of the cistern is flush with the ground, while sloping banks of earth around the sides lead up to the roof.

"Moisture draining into the reservoir from the low side of the roof maintains the

roof at a lower temperature than the atmosphere, thus assuring continuous condensation.

"At one side of the reservoir is a concrete basin set in the ground. By means of a ball valve, this basin is automatically kept full of water drawn from the reservoir."³

Air Wells

• In 1930, the Belgian inventor **Achille Knapen** built an "air well" atop a 600-foot-high hill at Trans-en-Provence in France. Its construction took him 18 months to complete. The unique structure was described in *Popular Mechanics* magazine:

"The tower... is about 45 feet tall. The walls are from 8 to 10 feet thick to prevent the heat radiation from the ground from influencing the inside temperature. It is estimated that the aerial well will yield 7,500 gallons of water per 900 square feet of condensation surface."⁴

An article in *Popular Science* magazine (March 1933) also featured Knapen's air well and included these details of its construction:

"[The air well has] a mushroom-like inner core of concrete, pierced with numerous ducts for the circulation of air; and a

central pipe with its upper opening above the top of the outer dome.

"At night, cold air pours down the central pipe and circulates through the core... By morning the whole inner mass is so thoroughly chilled that it will maintain its reduced temperature for a good part of the day. The well is now ready to function.

"Warm, moist, outdoor air enters the central chamber, as the daytime temperature rises, through the upper ducts in the outer wall. It immediately strikes the chilled core, which is studded with rows of slates to increase the cooling surface. The air, chilled by the contact, gives up its moisture upon the slates. As it cools, it gets heavier and descends, finally leaving the chamber by way of the lower ducts. Meanwhile, the moisture trickles from the slates and falls into a collecting basin at the bottom of the well."^{5,6}

Unfortunately, however, the structure did not perform as hoped; at best, it collected only about five gallons per night.

Knapen was inspired by the work of bioclimatologist Leon Chaptal, who built a small air well near Montpellier in 1929. The pyramidal concrete structure was 3 metres square by 2.5 metres in height (10 x 10 x 8 feet), with rings of small vent holes at the top and bottom. Its 8 cubic metres of volume was filled with pieces of limestone (5–10 cm) that condensed the atmospheric vapour and collected it in a reservoir. The yield ranged from 1–2.5 litres/day from March to September. In 1930, the structure collected about 100 litres from April to

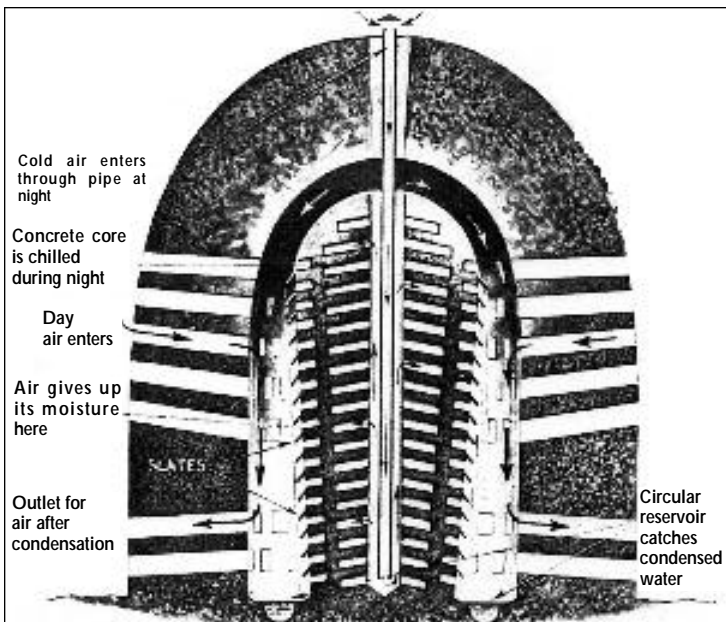


Figure 3: Knapen's Air Well



Knapen Air Well (Photo: International Organization For Dew Utilization)

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September, but only half that much in 1931. The maximum yield was 5.5 lb/day.

Chaptal found that the condensing surface must be rough, and the surface tension sufficiently low that the condensed water can drip. The incoming air must be moist and damp. The low interior temperature is established by re-radiation at night and by the lower temperature of the soil. Air flow was controlled by plugging or opening the vent holes as necessary.

Chaptal drew his inspiration from a surprisingly successful experiment by Friedrich Ziebold, who constructed an atmospheric condenser atop a hill at Feodosia (Theodosia), Crimea, modelled after the ancient air wells discovered there in 1900. Ziebold's condenser was a pile of sea pebbles (10–40 cm diam.), 20 metres in diameter and 1.15 metres high. The construction yielded up to 360 litres/day until 1915, when it began to leak due to a crack in the wall.

• **Calice Courneya** patented an air well in 1982 (USP #4,351,651):

"A heat exchanger at or near sub-surface temperature...is in air communication with the atmosphere for allowing atmospheric moisture-laden air to enter, pass through, cool, arrive at its dew point, allow the moisture to precipitate out, and allow the air to pass outward to the atmosphere again. Suitable apparatus may be provided to restrict air flow and allow sufficient residence time of the air in the heat exchanger to allow sufficient precipitation. Furthermore, filtration may be provided on the air input, and a means for creating a [negative] movement pressure, in the preferred form of a turbine, may be provided on the output..."

"The air well is buried about 9 feet deep. The entrance pipe is 3-inch diameter PVC pipe (10 feet long), terminating just near the ground... This is an advantage because the greatest humidity in the atmosphere is near the surface."^{7,8}

In a preferred embodiment, the intake is provided with a cyclone separator to precipitate dust before the air enters the pipe. In addition, a flow restrictor device can be installed before the exit port.

Air flows through the pipes at 2,000 cubic feet per hour at 45°F with a 5 mph wind. This translates to about 48,000 feet³/day (over 3,000 lb of air daily).

Courneya's first air-well used a turbine fan to pull air through the pipes. Later

designs employed an electric fan for greater airflow. At 90°F and 80% relative humidity (RH), the air well yields about 60 lb water daily. At 20% RH, the yield is only about 3 lb/day. The yield is even lower at lower temperatures.

It is difficult to calculate the amount of water that can be collected. The yield depends on the amount of air and its relative and specific humidity, and the soil temperature, thermal conductivity and moisture. Acoustic resonance within the pipes might enhance condensation. The more recent invention of acoustic refrigeration could be used to advantage, as well as the Hilsch–Ranque vortex tube.

The water collected by the Courneya air well is relatively pure, equivalent to single-distilled water. Analysis of water collected by an air well near a busy street found no sulphur or lead (measured in ppm).



Friedrich Ziebold's Atmospheric Condenser, Feodosia, Crimea, 1912
(Photo: International Organization For Dew Utilization)

• In the 1950s, the French inventor **Henri Coanda** designed an elegant method to produce pure water from saline. He designed an enormous silo with reflective walls, which was mounted several inches over a tidal pool. The silo was angled so as to catch and multiply the sunlight, thus superheating the air in the chimney. The rising hot air drew in cold air from the bottom, and became super-saturated with moisture by the time it reached the top. Fans then pulled the air through a condenser, from which pure water flowed.

The residual brine is of great value to the chemical industry and in the construction of solar ponds. The French government forced Coanda to cease operations because his device threatened their monopoly on salt production.

Coanda described his "Apparatus for Purification of Undrinkable Water" as follows in the abstract of his USP #2,803,591:

"Apparatus for the purification of non-potable water comprising, in combination, an installation for heating a circulating mass of air, said installation comprising at least one tubular element through which said air circulates and at least one trough-like mirror of parabolic section having the focal axis thereof horizontally disposed, with said tubular element disposed along said focal axis of said mirror, said mirror with its associated tubular element being mounted in the plane of symmetry of said mirror, and also being mounted to rotate about a vertical axis..."^{9,10}

Coanda also received USP #2,761,292 for his "Device for Obtaining Drinkable Water". He offered the following explanation:

"It is known that the air contains water, and according to my invention the energy for precipitating this water can be taken

from the air itself in motion. It is known that for a given temperature a given volume of air may not contain more than a certain quantity of water vapour. When it contains this quantity it is said to have reached its saturation point. Moreover, this point varies with the temperature, and the cooler the air, the less water vapour it may contain for a given volume.

"Consequently, when a relatively warm volume of moist air is cooled to a sufficiently low temperature, it yields the water it contained in excess over the quantity permitted by the saturation point at the temperature to which it has been cooled.

"In a continuous process of producing fresh water, it is necessary to absorb the heat derived from the warm moist air at a speed corresponding to the rate of cooling..."

Coanda recommended that the condenser be buried so that the earth could absorb the heat:

"For example, one cubic metre of air from a wind whose temperature is about 40°C can contain up to about 50 grams of water vapour; if the wind is forced to enter a certain space by passing along...a radiator in which a fluid circulates at the temperature existing 7 or 8 metres below the ground level, that is, of about 11°C, this wind will immediately precipitate on the radiator walls the portion of the water content which is in excess of that permitted by its saturation point at the cooler temperature, that is, about 40 grams per

cubic metre of air, as the saturation point of air at 11°C is 10 grams per cubic metre. The heat given off, which must be carried away by the fluid in the radiator, represents approximately 32 calories for said one cubic metre of air...

"It is advisable to pass the fluid through a second radiator of larger dimension, disposed in the ground at a certain depth.

"If the humidity of the warm air is definitely below 50 grams of water per cubic metre, that is, if the air is far from its saturation limit, and if the device for obtaining fresh water is disposed near the sea, it is possible to use [windmills] for spraying sea water into the warm air in fine droplets, thereby increasing the amount of water contained in the warm air through the partial evaporation of the sea water thereinto..."

Other humidity condensers have been built in recent years. Soviet cosmonauts aboard space station *Mir* used a system that recovered water from the air. The Aqua-Cycle, invented by William Madison, was introduced in 1992. It resembles a drinking fountain and functions as such, but it is not connected to any plumbing. It contains a refrigerated dehumidifier and a triple-purification system (carbon, deionisation and UV light) that produces water as pure as triple-distilled. Under optimal operating conditions (80°/60% humidity), the unit can produce up to five gallons daily.

Cloud Condensers and Fog Fences

In 1945, South Africa's chief meteorologist, Theodore Schumann, proposed the construction of a unique **Cloud Condenser** on top of the 3,000-foot Table Mountain on the south side of Capetown. Schumann's design comprised two large parallel fences of wire netting, one insulated and one grounded, which would be charged with a potential difference of 50–100 kV. The wire screens were to be about 150 feet high, 9,000 feet long, and one foot apart. He estimated that the electrified fence would condense as much as 30,000,000 gallons daily from "The Cloth", a perpetual cloud that crowns the peak. The fence was never built.

Alvin Marks invented the **Power Fence** to generate electricity from the wind by means of a charged aerosol which was dispersed from microscopic holes in the tubing of the fence. Marks calculated that if the wind averaged 25 mph, a mile of fence would generate about 40 megawatts of power. The towers would be 500 feet

high, strung with a grid of steel bars in a rectangular array, subdivided into a lattice of four-inch squares which are further divided by a mesh of perforated tubules through which the water flows. Marks's patent states that the system can be used to modify weather and to clear fog.^{11,12}

The **EGD Fog Dispersal System**, invented by Meredith Gourdine, has been used at Los Angeles and Ontario international airports and by the Air Force since 1986. The system uses an electrically charged mist that is sprayed into the fog over runways, thus clearing them for landing:

"[The system is comprised of] an array of charged submicron water droplet nozzles [and select] characteristics of a cloud of charged droplets...including a field strength...a charge concentration, a time constant, [etc.] whereby clearing of the air-borne particles occurs...by attachment of

the emitted submicron droplets to the air-borne particles to the ground."^{13,14}

A similar system was invented by Hendricus Loos (USP #4,475,927):

"[The system consists of] gapped air jets laden with electrically charged droplets of low mobility, a ground corona guard in the form of a shallow water-and-oil basin, and a charged-collector-drops emitting device on the ground, arranged in such a manner that the low-mobility charged droplets blown aloft by the air jets form a virtual electrode suspended at an appropriate height above the ground, toward which the oppositely charged high-mobility collector drops move, thereby collecting the neutral fog drops in their paths..."¹⁵

Chilean scientists have developed a revolutionary **Fog Trap** at Chungungo, Chile. A group of 50 fog traps made of plastic mesh stands atop a 2,600-foot mountain, collecting up to 2,000 gallons daily. The villagers call it "harvesting the clouds".

Walter Canto, regional director of Chile's national Forest Corporation, said: "We're not only giving Chungungo all the water it needs, but we have enough water to start

forests around the area that within five or six years will be totally self-sustaining."

Another 21 sites (1,000 acres total) on the Pacific coast of Latin America also have fog traps. Some of the locations have become self-sufficient because the trees have become large enough to collect fog for themselves, just as the ecosystem did before settlers disrupted it. Fog-forest ecosystems survive precariously on droplets of water collected by their leaves. Some such forests, surrounded by deserts, have been sustained by fog for millennia. Very little cutting is necessary to initiate gradual but complete destruction.

The ideal locations for fog traps are arid or semi-arid coastal regions with cold offshore currents and a mountain range within 15 miles of the coast, rising 1,500 to 3,000 feet above sea level. Mesh occupying 70% of the space is most effective for trapping fog droplets. Two layers of mesh, erected so as to rub together, optimise the collection of water in PVC pipes attached to the bottom of the nets. Collection varies with the topography and the density of the fog. The fog trap at Chungungo is 40 x 13 feet and produces 45 gallons/day. As the fog becomes denser and more frequent in the summertime, water production doubles.

Air wells, dew ponds and fog fences offer real hope for thirsty humanity. The quantity of water thus produced is not likely to meet the needs of large-scale agriculture, yet countless lives can be saved by this simple, elegant technology.

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(Source: By Robert Nelson, *Rex Research*, <http://www.rexresearch.com>)

**Soviet cosmonauts
aboard space station
Mir used a system that
recovered water
from the air.**

DARWINISM

A CRUMBLING THEORY

An overlooked explanation for why the fossil record shows primitive and complex life appearing suddenly on Earth, with no predecessors, is extraterrestrial intervention.

Part 1 of 2

by Lloyd Pye © 2002

Email: lloydpye@cox.net

Website: <http://www.lloydpye.com>

Since writing my first essay for NEXUS in mid-2002 [see 9/04], I've been bombarded by emails (nearing 200) from around the world, many offering congratulations (always appreciated, of course) and many others requesting more instruction or deeper insight into areas discussed and/or not discussed.

Let's face it: nearly everyone is interested in Darwinism, Creationism, Intelligent Design, and the new kid in town, Interventionism. Because of length constraints, this essay must be in two parts. Here, in Part One, I'll go over the basics currently known about the origin of life on Earth. Later, in Part Two, I'll discuss what is known and what can be safely surmised about the origin of humanity.

We begin by understanding that Charles Darwin stood on a very slippery slope when trying to explain how something as biologically and biochemically complex as even the simplest form of life could have spontaneously generated itself from organic molecules and compounds loose in the early Earth's environment. Because that part of Darwin's theory has always been glaringly specious, modern Darwinists get hammered about it from all sides, including from the likes of me, with a net result that the edifice of "authority" they've hidden behind for 140 years is crumbling under the assault.

Imagine a mediaeval castle being pounded by huge stones flung by primitive, but cumulatively effective, catapults. Darwinism (and all that term has come to represent: natural selection, evolution, survival of the fittest, punctuated equilibrium, etc.) is the castle; Darwinists man the battlements as the lobbed stones do their work; Intelligent Designers hurl the boulders doing the most damage; Creationists, by comparison, use slings; and the relatively few (thus far) people like me, Interventionists, shoot a well-aimed arrow now and then, though nobody pays much attention to us...yet.

Remember, a well-aimed (or lucky—in either case, the example is instructive) arrow took down mighty Achilles. Darwinists have heels, too.

LIFE, OR SOMETHING LIKE IT

In Charles Darwin's time, nothing was known about life at the cellular level. Protoplasm was the smallest unit they understood. Yet Darwin's theory of natural selection stated that *all* of life—every living entity known then or to be discovered in the future—simply *had* to function from birth to death by "natural laws" that could be defined and analysed. This would of course include the origin of life. Darwin suggested life might have gradually assembled itself from stray parts lying about in some "warm pond" when the planet had cooled enough to make such an assemblage possible. Later it was realised that nothing would likely have taken shape (gradually or otherwise) in a static environment, so a catalytic element was added: lightning.

Throughout history up to the present moment, scientists have been forced to spend their working lives with the "God" of the Creationists hovering over every move they make, every mistake, every error in judgment, every personal peccadillo. So when faced with something they can't explain in rational terms, the only alternative option is "God did it", which for them is unacceptable. So they're forced by relentless Creationist pressure to come up with answers for absolutely everything that, no matter how absurd, are "natural". That was their motivation for the theory that a lightning bolt could strike countless random molecules in a warm pond and somehow transform them into the first living creature. The "natural" forces of biology, chemistry and electromagnetism could magically be swirled together—and *voilà!*...an event suspiciously close to a miracle.

Needless to say, no Darwinist would accept terms like "magic" or "miracle", which would be tantamount to agreeing with the Creationist argument that "God did it all". But in their heart-of-hearts, even the most fanatical Darwinists had to suspect the "warm pond" theory was absurd.

And as more and more was learned about the mind-boggling complexity of cellular structure and chemistry, there could be no doubt. The trenchant Fred Hoyle analogy still stands: it was as likely to be true as that a tornado could sweep through a junkyard and correctly assemble a jetliner.

Unfortunately, the "warm pond" had become a counterbalance to "God did it", so even when Darwinists knew past doubt that it was wrong, they clung to it, outwardly proclaimed it and taught it. In many places in the world, including the USA, it's still taught.

TOO HOT TO HANDLE

The next jarring bump on the Darwinist road to embattlement came when they learned that in certain places around the globe there existed remnants of what had to be the very first pieces of the Earth's crust. Those most ancient slabs of rock are called *cratons*, and the story of their survival for 4.0 billion [4,000,000,000] years is a miracle in itself. But what is most miraculous about them is that they contain fossils of "primitive" bacteria! Yes, bacteria, preserved in 4.0-billion-year-old cratonic rock. If that's not primitive, what is? However, it presented Darwinists with an embarrassing conundrum.

If Earth began to coalesce out of the solar system's primordial cloud of dust and gas around 4.5 billion years ago (which by then was a well-supported certainty), then at 4.0 billion years ago the proto-planet was still a seething ball of cooling magma. No warm ponds would appear on Earth for at least a billion years or more. So how to reconcile reality with the warm-pond fantasy?

There was *no* way to reconcile it, so it was ignored by all but the specialists who had to work with it on a daily basis. Every other Darwinist assumed a position as one of the "see no evil, speak no evil, hear no evil" monkeys. To say they "withheld" the new, damaging information is not true; to say it was never emphasised in the popular media for public consumption *is* true.

That has become the way Darwinists handle any and all challenges to their pet theories: if they can no longer defend one, they don't talk about it, or they talk about it as little as possible. If forced to talk about it, they invariably try to "kill the messenger" by challenging any critic's "credentials". If the critic lacks academic credentials equal to their own, he or she is dismissed as little more than a crackpot. If the critic has equal credentials, he or she is labelled as a "closet Creationist" and dismissed. No career scientist can speak openly and vociferously against Darwinist dogma without paying a heavy price. That is why and how people of normally good conscience can be and have been "kept in line" and kept silent in the face of egregious distortions of truth.

If that system of merciless censure weren't so solidly in place, then surely the next Darwinist stumble would have made headlines around the world as the final and absolute end to the ridiculous notion that life could possibly have assembled itself "naturally". They couldn't even be sure it happened on Earth.

TWO FOR THE PRICE OF ONE

The imposing edifice of Darwinian "origin of life" dogma rested on a piece of incontrovertible bedrock: there could be only one progenitor for *all* of life. When the fortuitous lightning bolt struck the ideally concocted warm pond, it created only *one* entity. However, it was no ordinary entity. With it came the multiple ability to take nourishment from its environment, create energy from that nourishment, expel waste created by the use of that energy and (almost as an afterthought) reproduce itself *ad infinitum* until one of its millions of subsequent generations sits here at this moment reading these words. Nothing miraculous about that; simply incalculable good fortune.

This was Darwinist gospel—preached and believed—until the bacteria fossils were found in the cratons. Their discovery was upsetting, but not a deathblow to the Darwinist theory. They had to concede (among themselves, of course) that the first life-form didn't assemble itself in a warm pond, but it came together *somehow* because every ancient fossil it spawned was a single-celled bacteria lacking a cell nucleus (*prokaryotes*). Prokaryotes preceded the much later single-celled bacteria *with* a nucleus (*eukaryotes*), so the post-craton situation stayed well within the Darwinian framework. No matter how the first life-form came into existence, it was a single unit lacking a cell nucleus, which

was mandatory because even the simplest nucleus would be much too "irreducibly complex" (a favourite Intelligent Design phrase) to be created by a lightning bolt tearing through a warm pond's molecular junkyard. So the Darwinists still held half a loaf.

In the mid-1980s, however, biologist Carl Woese stunned his colleagues with a shattering discovery. There wasn't just the predicted (and essential) single source for all forms of life; there were *two*: two types of prokaryotic bacteria as distinct as apples and oranges, dogs and cats, horses and cows...two distinct forms

of life, alive and well on the planet at 4.0 billion years ago. Unmistakable. Irrefutable. Get over it. Deal with it.

But how? How to explain separate forms of life springing into existence in an environment that would make hell seem like a summer resort? With nothing but cooling lava as far as an incipient eye might have seen, how could it be explained in "natural" terms? Indeed, how could it be explained in any terms other than the totally unacceptable? Life, with all its deepening mystery, had to have been *seeded* onto Earth.

PANSPERMIA RAISES ITS UGLY HEAD

Panspermia is the idea that life came to be on Earth from somewhere beyond the planet and possibly beyond the solar system. Its means of delivery is separated into two possible avenues: directed and undirected.

Undirected panspermia means that life came here entirely by accident and was delivered by a comet or meteor. Some scientists favour comets as the prime vector because they contain ice mixed with dust (comets are often referred to as "dirty snowballs"), and life is more likely to have originated in water and is more likely to survive an interstellar journey frozen. Other scientists favour asteroids as the delivery mechanism because they are more likely to have come from the body of a planet that would have contained

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life. A comet, they argue, is unlikely ever to have been part of a planet, and life could not possibly have generated itself in or on a frozen comet.

Directed panspermia means life was delivered to Earth by intelligent means of one kind or another. In one scenario, a capsule could have been sent here the same way we sent *Voyager* on an interstellar mission. However, if it was sent from outside the solar system, we have to wonder how the senders might have known Earth was here, or how Earth managed to get in the way of something sent randomly (*à la Voyager*).

In another scenario, interstellar craft manned by extraterrestrial beings could have arrived and delivered the two prokaryote types. This requires a level of openmindedness that most scientists resolutely lack, so they won't accept either version of directed panspermia as even remotely possible. Instead, they cling to their "better" explanation of undirected panspermia because it allows them to continue playing the "origin" game within the first boundaries set out by Charles Darwin: undirected is "natural"; directed is "less natural".

Notice it can't be said that directed panspermia is "unnatural". According to Darwinists, no matter where life originated, the process was *natural* from start to finish. All they have to concede is that it didn't take place on Earth. However, acknowledging that forces them to skirt dangerously close to admitting the reality of extraterrestrial life, and their ongoing "search" for such life generates millions in research funding each year. This leaves them in no hurry to make clear to the general public that, yes, beyond Earth there is at the very least the same primitive bacterial life we have here. There's no doubt about it. But, as usual, they keep the lid on this reality, not exactly hiding it but making no effort to educate the public to the notion that we are not, and never have been, alone. The warm pond still holds water, so why muddy it with facts?

A PATTERN EMERGES

In my book, *Everything You Know Is Wrong*, I discuss all points mentioned up to now, which very few people outside academic circles are aware of. Within those circles, a hard core of "true believers" still seizes on every new discovery of a chemical or organic compound found in space to try to move the argument back to Darwin's original starting point that *somehow* life assembled itself on Earth "naturally".

However, most objective scholars now accept that the first forms of life had to have been *delivered* because: (1) they appear as two groups of multiple prokaryotes (archaea and true bacteria); (2) they appear whole and complete; (3) the hellish primordial Earth is unimaginable as an incubator for burgeoning life; and (4) a half-billion years seems far too brief a time-span to permit a gradual, step-by-step assembly of the incredible complexity of prokaryotic biology and biochemistry.

Even more damaging to the hard-core Darwinist position is that the prokaryotes were—quite propitiously—as durable as life gets. They were virtually indestructible, able to live in absolutely *any* environment—and they've proved it by being here today, looking and behaving the same as when their ancestors were fossilised 4.0 billion years ago. Scalding heat? *We love it!* Choked by saline? *Let us at it!* Frozen solid? *We're there!* Crushing pressure?

Perfect for us! Corrosively acidic? Couldn't be better!

Today they are known as *extremophiles*, and they exist alongside many other prokaryotic bacteria that thrive in milder conditions. It would appear that those milder-living prokaryotes could not have survived on primordial Earth, so how did they come to be? According to Darwinists, they "evolved" from extremophiles in the same way humans supposedly evolved on a parallel track with apes—from a "common ancestor".

Darwinists contend such parallel tracks don't need to be traceable. All that's required is a creature looking reasonably like another to establish what they consider a legitimate claim of evolutionary connection. Extremophiles clearly existed: we have their 4.0-billion-year-old fossils. Their descendants clearly exist today, along with mild-environment prokaryotes that *must* have descended from them. However, transitional forms between them cannot be found, even though such forms are required by the tenets of Darwinism. Faced with that embarrassing problem, Darwinists simply insist that the missing transitional species *do* exist, still hidden somewhere in the fossil record, just as the "missing link" between apes and humans is out there somewhere and will indeed be discovered someday. It's simply a matter of being in the right place at the right time.

For as expedient as the "missing link" has been, it's useless to explain the next phase of life on Earth, when prokaryotes began

sharing the stage with the much larger and much more complex (but still single-celled) eukaryotes, which appear around 2.0 billion years ago. The leap from prokaryote to eukaryote is too vast even to pretend a missing evolutionary link could account for it. A dozen would be needed just to cover going from no nucleus to one that functions fully. (This, by the way, is also true of the leap between so-called pre-humans and humans, which will be discussed in Part Two).

How to explain it? Certainly not plausibly. Fortunately, Darwinists have never lacked the creativity to invent "warm-pond" scenarios to plug holes in their dogma.

DOING THE DOGMA SHUFFLE

Since it's clear that a "missing link" won't fly over the prokaryote-eukaryote chasm, why not assume some of the smaller prokaryotes were eaten by some of the larger ones? *Yeah, that might work!* But instead of turning into food, energy and waste, the small ones somehow turn themselves—or get turned into—cell nuclei for larger ones. *Sure, that's a keeper!* Since no one can yet prove it didn't happen (*Thank God!*), Darwinists are able to proclaim it did. (Keep in mind, when any critic of Darwinist dogma makes a suggestion that similarly can't be proved, it's automatically dismissed, because "lack of provability" is a death sentence outside their fraternity. Inside their fraternity, consensus is adequate because the collective agreement of so many "experts" should be accepted as gospel.)

To Interventionists like me, the notion of prokaryotes consuming each other to create eukaryotes is every bit as improbable as the divine fiat of Creationists. But even if it were a biological possibility (which most evidence weighs against), it would still seem fair to expect "transition" models somewhere along the line. Darwinists say "no" because this process could have an "overnight" aspect to it. One minute there's a large prokaryote

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alongside a small one, the next minute there's a small eukaryote with what appears to be a nucleus inside it. Not magic, not a miracle, just a biological process unknown today but which could have been possible 2.0 billion years ago. Who's to say, except an "expert"? In any case, large and small prokaryotes lived side by side for 2.0 billion years (long enough, one would think, to learn to do so in harmony), then suddenly a variety of eukaryotes appeared alongside them, whole and complete, ready to join them as the only game in town for another 1.4 billion years (with no apparent changes in the eukaryotes, either).

At around 600 million years ago, the first multicellular life-forms (the Ediacaran Fauna) appear—as suddenly and inexplicably as the prokaryotes and eukaryotes. To this day, the Ediacaran Fauna are not well understood, beyond the fact they were something like jellyfish or seaweeds in a wide range of sizes and shapes. (It remains unclear whether they were plants or animals, or a bizarre combination of both.) They lived alongside the prokaryotes and eukaryotes for about 50 million years, to about 550 million years ago, give or take a few million, when the so-called "Cambrian Explosion" occurred.

It's rightly called an "explosion", because within a period of only 5 to 10 million years—a mere eye-blink relative to the 3.5 billion years of life preceding it—the Earth's oceans filled with a dazzling array of seawater plants and all 26 of the animal phyla (body types) catalogued today, with no new phyla added since. No species from the Cambrian era looks like anything currently alive—except trilobites, which seem to have spawned at least horseshoe crabs. However, despite their "alien" appearance, they all arrived fully assembled—males and females, predators and prey, large and small, ready to go. As in each case before, no predecessors can be found.

THE PACE HEATS UP

Volumes have been written about the Cambrian Explosion and the menagerie of weird plants and animals resulting from it. The Earth was simply *inundated* with them, as if they'd rained down from the sky. Darwinists concede it is the greatest difficulty—among many—they confront when trying to sell the evolutionary concept of *gradualism*. There is simply no way to reconcile the breathtaking suddenness...the astounding variety...the overwhelming incongruity of the Cambrian Explosion. It is a testament to the old adage that "one ugly fact can ruin the most beautiful theory". But it's far from the only one.

All of complex life as we understand it begins with the Cambrian Explosion, in roughly the last 550 million years. During that time, the Earth has endured five major and several minor catastrophic extinction events. Now, one can quibble with how an event catastrophic enough to cause widespread extinctions could be called "minor", but when compared to the major ones the distinction is apt. The five major extinction events eliminated 50% to 90% of all species of plants and animals alive when the event occurred.

We all know about the last of those, the Cretaceous event of 65 million years ago that took out the dinosaurs and much of what else was alive at the time. But what few of us understand is the distinctive pattern to how life exists *between* extinction events and *after* extinction events. This difference in the pattern of life creates serious doubts about "gradualism" as a possible explanatory

mechanism for how species proliferate.

Between extinction events, when environments are stable, life doesn't seem to change at all. The operative term is *stasis*. Everything stays pretty much the same. But after extinction events, the opposite occurs: everything changes profoundly. New life-forms appear all over the place, filling every available niche in the new environments created by the after-effects of the catastrophe. Whatever that is, it's not gradualism.

In 1972, (the late) Stephen J. Gould of Harvard and Niles Eldredge of the American Museum of Natural History went ahead and bit the bullet by announcing that fact to the world. Gradual evolution simply was not borne out by the fossil record, and that fact had to be dealt with. Darwin's view of change had to be modified. It wasn't a gradual, haphazard process dictated by random, favourable mutations in genes. It was something else.

That "something else" they called *punctuated equilibrium*. The key to it was their open admission of the great secret that life-forms only changed in spurts after extinction events, and therefore had nothing to do with natural selection or survival of the fittest or any of the old Darwinist homilies that everyone had been brainwashed to believe. It was the first great challenge to Darwinian orthodoxy, and it was met with furious opposition. The old guard tagged it "punk eek" and called it "evolution by jerks".

TRUTH AND CONSEQUENCES

What Gould and Eldredge were admitting was the great truth that evolution by natural selection is not apparent in either the fossil record or in the life we see around us. The old guard insisted that the fossil record simply *had* to be wrong...that it wasn't giving a complete picture because large tracts of it were missing. That was true, but much larger tracts *were* available, and those tracts showed the overwhelming stasis of life-forms in every era, followed by rapid filling of environmental niches after each

extinction event. So while parts of the record were indeed missing, what was available was unmistakable.

Arguments raged back and forth. Explanations were created to try to counter every aspect of the punk-eek position. None was ever particularly convincing, but they began to build up. Remember, scientists have the great advantage of being considered by one and all as "experts", even when they haven't the slightest idea of what they're talking about. That allows them to throw shot after shot against the wall until something sticks, or until the target of their wrath is covered in so much "mud" that it can't be seen any more. Such was the fate of the punk-eekers. By the early 1990s, they'd been marginalised.

One can hardly blame the old-guard Darwinists for those attacks. If granted any credence, the sudden radiations of myriad new species into empty environmental niches could have gutted many of the most fundamental tenets of gradual, "natural" evolution. That idea simply could *not* become established as a fact. Why? Because the warm pond was drained dry, biochemistry was rendering the "small-eaten-by-large prokaryotes turned into eukaryotes" story absurd, and the Cambrian Explosion was flatly inexplicable. If "sudden radiation" were heaped onto all of that, the entire theory of evolution could flounder...and where would that leave Darwinists? Facing righteous Creationists shouting, "See! God *did* do it after all!" Whatever else the

There is simply no way to reconcile the breathtaking suddenness...the astounding variety...the overwhelming incongruity of the Cambrian Explosion.

Darwinists did, they couldn't allow that to happen.

Speaking as an Interventionist, I don't blame them. To me, God stands on equal footing with the lightning bolt. I see a better, far more rational answer to the mysteries of how life came to be on planet Earth: it was put here by intelligent beings, and it has been continuously monitored by those same beings. Whether it's been developed for a purpose or toward a goal of some kind seems beyond knowing at present, but it can be established with facts and with data that intervention by outside intelligence presents the most logical and most believable answer to the question of how life came to be here, as well as of how and why it has developed in so many unusual ways in the past 550 million years.

So now we come to the crux.

COSMIC ARKS

Darwinists go through life waving their PhD credentials like teacher's pets with a hall pass, because it allows them to shout down and ridicule off the public stage anyone who chooses to avoid the years of brainwashing they had to endure to obtain those passes. However, their credentials give them "influence" and "credibility" with the mainstream media, who don't have the time, the ability or the resources to make certain that everything every Darwinist says is true. They must trust *all* scientists not to have political or moral agendas, and not to distort the truth to suit those agendas. So, over time, the media have become lapdogs to the teacher's pets, recording and reporting whatever they're told to report, while dismissing out of hand whatever they're told to dismiss out of hand.

Despite Darwinists' rants that those who challenge them do so out of blithering idiocy, that is not always the case. For that matter, their opponents are not all Creationists, or even Intelligent Designers, whom Darwinists labour feverishly to paint into the "goofy" corner where Creationists rightly reside. So

Interventionists like me have few outlets for our ideas, and virtually none in the mainstream media. Nevertheless, we feel our view of the origin of life makes the best sense, given the facts as they are now known, and the most basic aspect of our view starts with what I once called "cosmic dump trucks". However, that term has been justly criticised as facetious, so now I call them "cosmic arks".

Imagine this scenario: a fleet of intergalactic "terraformers" (another term I favour) cruises the universe. Their job is to locate forming solar systems and seed everything in them with an array of basic, durable life-forms capable of living in *any* environment, no matter how scabrous. Then the terraformers return on a regular basis, doing whatever is needed to maximise the capacity for life within the developing solar system. Each system is unique, calling for specialised forms of life at different times during its development, which the terraformers provide from a wide array of cosmic arks at their disposal.

With that as a given, let's consider what's happened on Earth. Soon after it began to coalesce out of dust and gas, two forms of virtually indestructible bacteria appeared on it, as if someone knew precisely what to deliver and when.

Also, it would make sense that every other proto-planet in the solar system would be seeded at the same time. How could even terraformers know which forming planets would, after billions of

years, become habitable for complex life? And guess what? A meteorite from Mars seems to contain fossilised evidence of the same kinds of *nano-* (extremely small) bacteria found on Earth today. All other planets, if they're ever examined, will probably reveal similar evidence of a primordial seeding. It would make no sense for terraformers to do otherwise.

THE RUST ALSO RISES

So, okay, our solar system is noticed by intergalactic terraformers as the new sun ignites and planets start forming around it. On each of the planets they sprinkle a variety of two separate forms of single-celled bacteria they know will thrive in *any* environment (the extremophiles). But the bacteria have a purpose: to produce *oxygen* as a component of their metabolism. Why? Because life almost certainly has the same basic components and functions everywhere in the universe. DNA will be its basis, and "higher" organisms will require oxygen to fuel their metabolism. Therefore, complex life can't be "inserted" anywhere until a certain level of oxygen exists in a planet's atmosphere.

Wherever this process is undertaken, the terraformers have a major problem to deal with: *iron*. Iron is an abundant element in the universe. It is certainly abundant in planets (meteorites are often loaded with it). Iron is very reactive with oxygen: that's what rust is all about. So on none of the new planets forming in

any solar system can higher life-forms develop until enough oxygen has been pumped into its atmosphere to oxidise most of its free iron. This, not surprisingly, is exactly what the prokaryotes did during their first 2.0 billion years on Earth. But it had to be a two-part process.

The proto-Earth would be cooling the whole time, so let's say full cooling takes roughly 1.0 billion years. So the extremophiles would be the first batch of prokaryotes inserted because they could survive it. Then, after a billion years or so, the

terraformers return and drop off the rest of the prokaryotes, the ones that can live in milder conditions. Also, they have to keep returning on a regular basis because each planet would cool at a different rate due to their different sizes and different physical compositions.

However many "check-up" trips are required, by 2.0 billion years after their first seeding of the new solar system the terraformers realise the third planet from the sun is the only one thriving. They are not surprised, having learned that a "zone of life" exists around *all* suns, regardless of size or type. Now that this sun has taken its optimum shape, they could have predicted which planet or planets would thrive. In this system, the third is doing well but the fourth one is struggling. It has its prokaryotes and it has water, but its abundance of iron (the "red" planet) will require longer to neutralise than such a small planet with a non-reactive core will require to cool off, so it will lose its atmosphere to dissipation into space before a balance can be achieved. The fourth planet will become a wasteland.

The terraformers carry out the next phase of planet-building on the thriving third by depositing larger, more complex, more biologically reactive eukaryotes to accelerate the oxidation process. Eukaryotes are far more fragile than prokaryotes, so they can't be

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and virtually none in the
mainstream media.**

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THE SAGA OF DAN BURISCH, AREA 51 MICROBIOLOGIST

Dr Dan Burisch, a microbiologist and EBE geneticist working out of the US military's top-secret S4 facility since 1989, has reportedly met an untimely death shortly after turning whistleblower.

by Bill Hamilton © 2002

Executive Director
Skywatch International Inc.

Email:
skycom22@skywatch-research.org
Website:
<http://www.skywatch-research.org>

Those familiar with recent ufological history will remember Robert Lazar. In 1989, Lazar came forward with an incredible story: he had been recruited by the US government to work at the top-secret Groom Lake/Area 51 research base, better known as "Dreamland" (actually, at the S4 site, Papoose Mountain, which is a few miles to the south of Groom Lake), to reverse-engineer alien spacecraft! Researcher Tom Mahood conducted an openminded investigation of Lazar and posted a timeline, beginning with his birth in Florida on January 26, 1959, and continuing through to his problems with pandering charges, bankruptcy, etc. It was once a hot story, but now many consider Lazar's was either a fabrication or deliberate disinformation.

However, the story of Bob Lazar's working on the "sports model" would not die, and other test-site workers have affirmed that Bob did indeed work at the Nevada Test Site. Other sources have said that the S4 facility is just as Bob describes it to be, and that reverse engineering is conducted there in secret. I have even met one computer engineer who works on contract for the Navy at Area 51, who has reverse-engineered an alien device. He is quite credible and is still on contract from time to time. Oh yes, he has a genuine Area 51 badge—not one of the fun badges sold at UFO conferences.

Recently, friends of another scientist who worked at S4 stepped forward, and I have taken on this new case—bearing in mind all those nasty critics out there. Why? Because it fascinates me. This is the saga of a man held in captivity by his employers to the day he died—supposedly some time between September and early October 2002. His name: Dr Dan Burisch.

Background on Dan B. Burisch, PhD

Dan Burisch was born Danny Benjamin Crain on February 2, 1964. In 1990, he married Deborah Kay Burisch, who had a child from a previous marriage. In 1995, he changed his surname to Burisch to match the child's legal surname.

From his childhood it was clear that Dan had an aptitude for microbiology. At the age of eight he was taken under the wing of various hospital doctors and medical scientists in what turned out to be an early start to an intriguing career in microbiology, much of it in the military "black ops" world.

Dan's education record is by no means complete, but for the time period 1982–85 he is listed as a biologist and owner of Crain Environment Research in Las Vegas. In 1986 he received his BA in Psychology from University of Nevada, Las Vegas, and was approached as a candidate for working on a project for the government. In 1988 he was awarded a Master of Divinity from St Patrick's Seminary, Menlo Park, California; and in 1989 he obtained a PhD in Microbiology and Molecular Genetics from the State University of New York (SUNY), Stony Brook. SUNY has already denied having a record of this, but documents showing his educational record do exist.

As for his military service record, by 1989 he was ranked Captain in the US Navy and was cleared to work at Groom Lake on Project *Aquarius*; his S4 badge was #H-6196MAJ. A secrecy agreement for the Tonopah Test Range/R4809, dated October 14, 1989, and bearing Burisch's (Crain's) signature, lists his SSAN [social security number], his rank as "05", his title as "MB III" (Microbiology III), and his employer as US Navy Department of Defense Naval Research Laboratory. A later document gives his service rank as Captain, US Naval Reserve, and his title as "Microbiologist IV". In 1991 he was cleared to work with a biowarfare unit and went to Iraq during *Desert Storm*, after which he was awarded a Presidential citation for field service.

In 1994, Dan authored a report, Q-94-109A, coded COSMIC-MAGIC, on samples taken from an extraterrestrial biological entity (EBE) known as "AQ-J-Rod" on Project *Aquarius*. He last worked on Project *Star Flower 1*, involving the "Genesis Seed", up to September 2002.

I am researching various specific references I have in my possession which suffice to say that Dan did indeed work on a project involving a live EBE. I now know that J-Rod was an assistant to EBE-3 and was assigned to the Groom Lake facility. J-Rod has been held captive by Majestic so they could continue to conduct tests by further examining his physiology. He was due to leave in 1994, but is most likely still here. (See website http://www.ufoconspiracy.com/reports/mj12_ebes1_2_3_jarod.htm for the story of the so-called "guests" of the US government.)

The commentary that follows is from my source:

"I was going through my files to find out about Dan's badge. For what it's worth, I can tell you what it looked like, based on his descriptions: it was a white badge with two blue hash marks across the upper left side. Below these hash marks was his designated area, 'S4'. Directly above the S4 was a star-shaped punch. On his old badge, there were three letters underneath S4; they were 'ETL' for 'ExtraTerrestrial Laboratory'. In his later badges they changed the 'ETL' to 'EBL', for 'Extraterrestrial Biological Laboratory'.

"On the right-hand side of the badge was 'MAJ' spelled vertically. The badges also displayed the photo of the scientist, and below this photo was his name, assignment and badge number (the H-number). Along the very bottom was either a 'DX' (standing for departmental transfer) or 'WX' (standing for engineering transfer) code which would allow the person access to different parts of the project, or 'pavilions' as they call them.

The reverse of this badge had a black mag-strip.

"When Dan got his badge, it was usually paired up with an orange badge that gave his number for logging into that facility (Papoose) for the day. Dan would receive a separate badge if he needed to go to Floor 2, which, if I correctly remember his saying, were for LG [Project *Looking Glass*] and *SideKick*."

Projects Conducted at S4

As a microbiologist, Dan's past research accomplishments centered around the elucidated roles of protein complexes on/in cell membranes, and ecosystem analysis.

Dan also had an intense interest in Mars, its anomalies and its potentials for life. He submitted a proposal to NASA, entitled "On the Transplantation of Protozoa and the Exploitation of Martian Exobiology: The Case for *Euglena viridis* in the Automated Biological Laboratory". NASA replied: "Your project has been found to contain sufficient intrinsic merit as to enable integration into NSCORT [NASA Specialized Center of Research and Training] Bioregenerative Life Support Division, a sub-directorate of the Controlled Ecological Life Support Systems (CELSS) Program of the National Aeronautics and Space Administration."

In 1989, Dan was assigned as a microbiologist to Project *Aquarius*, R-4800, Papoose Site 4 (S4) on the Nevada Test Site, at the same location as Robert Lazar, though only briefly when Lazar was there. Eventually, around 1994, he was promoted to

the Working Group Leader position; he said this was because of his excellent working relationship with J-Rod. He worked in the underground biological lab that had been installed on Level 4. The security procedures for entering the area included optical retinal scan and voice-print identification. Showering, shaving, decontamination and change of clothing were required before entering the lab, which had been classified at a Biosafety Level of 5, which is not listed in the OSHA manuals. Here is a description of Biosafety Level 4:

"Practices, safety equipment, and facilities are applicable to work with dangerous and exotic agents which pose a high individual risk of life-threatening disease. All manipulations of potentially infectious diagnostic materials, isolates, and naturally or experimentally infected animals pose a high risk of exposure and infection to laboratory personnel. Lassa Fever virus is representative of the micro-organisms assigned to Level 4."

I guess that coming into contact with extraterrestrial life-forms is an additional level of hazard. Unknown microbes could be transferred from the host to the workers.

Project *Aquarius* was only one of five compartmentalised projects conducted at the S4 facility. It was an umbrella project with a focus on the study of the EBEs.

The others projects were:

- Project *Sigma*: to establish communication with aliens.
- Project *Galileo*: dealt with propulsion systems and was the main area of study for Bob Lazar. Lazar says he was taken to the briefing room and told to study reports about propulsion and the role of gravity as the propulsion medium. Harnessing, amplifying and lensing the basic gravity-A wave has many other possibilities.
- Project *Sidekick*: involved beam-weapon technology.

- Project *Looking Glass*: dealt with space-time travel.

All these projects were known by Dan, but their descriptions and relationships will have to be investigated further.

Dan said he was allowed to read briefing documents regarding the aliens and their technology, and there was something that referred to a "Convergent Time Line", which could explain why "they" are here, what they are doing and why sampling of the population and life-forms on this planet is being conducted.

According to Dan, the officer he reported to was then Vice-Admiral J. M. McConnell, who from 1992 to 1996 was Director of the National Security Agency (NSA), the agency responsible for Signals Intelligence and for all classified information security for the US government. McConnell served as the Intelligence Officer for the Chairman, Joint Chiefs of Staff (JCS-J2), during the dissolution of the Soviet Union and Operation *Desert Storm*. While serving on the Joint Staff, McConnell regularly briefed the President and his Cabinet officers, international leaders and the Senate and House of the US Congress. He also appeared regularly on international television as the US intelligence spokesman during the Gulf War. He achieved the rank of Vice-Admiral in the US Navy, where he spent more than 25 years as an operational intelligence officer. McConnell is now retired into civilian life and joined the strategic management and technology consulting firm Booz Allen in March 1996.

What impression do I have from meeting Dan? My impression is that he was real and afraid. Like many others, he took a

In 1994, Dan authored a report, Q-94-109A, coded COSMIC-MAGIC, on samples taken from an extraterrestrial biological entity (EBE) known as "AQ-J-ROD".

National Security Oath and had a tremendous interest in the subject of study, but could not share the details with the world at large.

After all that I've heard and after piecing together over 20 different, amazing testimonies, I think I finally understand the reason for the cover-up. It is a story that spans aeons of time and devolves on who we are and who they are. We are all related, and DNA is the gem of the cosmos. There is so much that now makes sense, once I had threaded it all together, that I am amazed at the feel of it, the truth of it, and the miracle of space, time and life.

The one thing I have heard time and again is that time is short, that time is running out, that big changes are ahead and that the world may never be the same again. Only when I check this further will I report on it. This is not just another UFO story. The cosmic code is there for all to use their intelligence to decipher.

Project Star Flower

Dan was last working for the "powers that be" on a project once dubbed *Lotus*, now coded as *Star Flower 1*. This project deals with the original seeding of the Earth that started all forms of life. The *panspermia* hypothesis holds that life on Earth was seeded from space, and that life's evolution to higher forms depends on genetic programs that come from space. It is a wholly scientific, testable theory for which evidence is accumulating.

In accordance with new ideas on evolutionary biology beyond the neo-Darwinist approach, Dan found that (1) life comes from space; and (2) the "Genesis Seed" has evidence of intelligent design and operation (not alien intelligence, but a Cosmic Creator intelligence). Here is what he had to say about it:

"Since my beginning within M--- [blacked out], I have had the distinct honor of having been assigned to some of the most interesting projects known to humankind. From the work of Project Aquarius to the sands of the Iq desert, I have attempted to...serve my country with the greatest effort and efficiency. I deeply hope that my latest assignment, in Africa, has served the interests of the United States of America.

"For the past decade, I have been slowly formulating a thesis, bringing together the research of the greatest minds of humanity to attempt an answer to the ages-old question of our origins. That formulation culminated in the L [Lotus] Project, later named Project S Fl [Star Flower]. In a nutshell, we have found the key elements to put together an ancient virus that not only once seeded our beautiful planet, but whose integral parts still play an act of continuous creation within the intricate web of life. That play, we believe, pushes forward the complexity found within the biosphere,

to perfectly match species diversity to the other elements of our living world. This sounds wonderful; however, just as there exist subtle behavioral cues within child's play, so too we believe that such also resides, hidden within the conjoined L.

"Being armed with the most ancient DNA codes, having the power to manipulate the dance of the L, does not give us sufficient knowledge, the authority of its maker or the right itself to conjoin, synthesize or otherwise taunt it or its awesome powers. Our span of control exists within the narrow range of careful study. To do more, we risk humanity..."

Much of what Dan describes is very technical and deals with protocols and procedures. I am currently contacting friendly scientists to help decipher some

of this. There is more to all of this which has been added from other confidential sources. It is always easy to dismiss these extraordinary claims, but I believe in going beyond scepticism and investigating every nuance. There is much going on here that will finally make sense to those with keen intuition.

We discussed DNA, but it is not just the structure of the molecules in DNA but the resonances and vibrations that relate to extraordinary mathematical harmonies.

If DNA arrived from space, embedded in a virus or protective capsule, and split into primary components (as Dan believed), then panspermia—the hypothesis that life on Earth came from seed elements deposited on Earth in meteoric and cometary collisions—may be the normal way that planets give birth to life by a sort of cosmic fertilisation.

See overleaf for Dr Dan Burisch's Last Letter.



Sketch of J-Rod wearing a man's shirt. The drawing is by retired mechanical engineer Bill Uhouse, based on the entity's appearance at a science meeting with physicist Edward Teller and other scientists in the 1970s or early 1980s.

About the Author:

Bill Hamilton (William F. Hamilton III) is a senior programmer-analyst at UCLA and has worked in the information technology field for over 30 years. He has several degrees, majoring in psychology, physical science and information technology, and was awarded a top grade in electronic technology with the US Air Force Security Service (1961–65). He is the author of several books: *Space, Time, and Gravity* (1975); *Center of The Vortex* (1979); *Cosmic Top Secret* (1990); *Alien Magic* (1996); and *The Phoenix Lights* (2001). His articles have been published in numerous journals and magazines including *Energy Unlimited*, *Borderlands*, *Psychic Observer*, *UFO Magazine*, *MUFON Journal* and *UFO Universe*.

Bill has also researched underground facilities and their uses in reverse engineering and the development of alien technology and biotechnology. He continues to pursue the UFO phenomenon, and is currently making plans for Skywatch International as a premier UFO research organisation. He can be contacted at Skywatch, PO Box 4243, Lancaster, CA 93539-4243, USA, email skycom22@skywatch-research.org, website <http://www.skywatch-research.org>.

THE LAST LETTER FROM DR DAN BURISCH

This message is a response by Dan Burisch to another member of the "projects" and contains plain language about his work, his thoughts, his contact with J-Rod (also J-ROD or JAROD), the extraordinary "Doctrine of the Convergent Timeline Paradox", and his beliefs as a person and a scientist.

Dr Dan B. Burisch, the man who worked at Area 51/S4 and turned whistleblower on genetic experiments, is now dead. This, his last letter, written in September 2002, is recorded for posterity, for it will be those who inherit the future who will discover the truth or falsity of these statements.

— Bill Hamilton

Dear Politically Prepared:

This question stirs memories of my best buddy (we will call him "Mike") and myself when strolling near the Old Chem Building, it seems not so long ago. He met with me, between my having to attend a lecture and going to another session with a seasoned professor trying to straighten up my youthful "problems" at that time with my "melting point unit" technique—but that would be another story. :) (I still hold that it was that particular damned machine's fault!... :() ...)

Mike told me, between my over-eager questions about the black-ops community I was preparing to enter, that a man of science, in our community, was only as good as his ability to explain himself: to his God, other scientists, and the non-science members. Thus far, I pray I have at least fulfilled the first two in the list. I feel comfortable with the first (God), and given the support of the various National Laboratories and their quiet assisting scientists, okay with the second. The third seems to be the greatest challenge.

If you have college preparation in political science, I am hoping that you have had at least some basic undergraduate preparation in biology. If not, I fear that I will not have the time necessary to explain myself before I am due to return to the Shady Rest [a nickname for the S4 facility]. If I fail, I apologise in advance.

For so long I accepted the classical mechanisms that Darwinian and Neo-Darwinian Theory provide (together with other genetic/population dynamics data), and extended my science into their accepted belief system: the one that leaps from microevolutionary changes that result in speciation, to the dogma of the common ancestor which links the evolutionary path (albeit dated) of the earliest bacteria to the human. I laughed with my fellow theorists at the Creationists' "misinterpretation" that inanimate rock gradually yields life. I relegated the Creationist belief system to fanaticism, and regarded the Darwinian belief system as science and truth.

Frankly, my experience in "training" for Project *Aquarius* and the J-Rod extraterrestrial biological entity (EBE) did nothing but enhance those beliefs. As our future plays itself out (within the conditions I have read), the genetic divergence which caused the difference between we (now) and us (the J-Rod species, later) fit well within the same mechanism posited for our gradual development from a prehomimid to the modern humans we see today. The interrelations with the Neanderthals and our current body shape also promoted me along the trail of Darwinism. This, together with the psychological nature of the J-Rod (a future, evolved, logical and mathematical/scientific kind), made an easy fit with the dogma of modern evolutionary biology. It was all good, and all my training seemed to match. Then I became his friend.

My experience with the J-Rod and his willingness to suffer for

his (and our) kind entranced me. Was his willingness based on logic and/or the preservation of favorable characteristics? Well, it could have been, and that was my supposition before friendship. His current state may have had sequences that drove him to the notions of altruism. Once the bond was made, I found that while he was aware that his nerve degeneration disorder could have a future treatment, that was not his major concern. Rather, this logical being seemed, by virtue of constant statements, to long to help set straight a series of errors in judgment and events that culminated in our being separated from our spiritual nature. He was searching for something lost, not being driven by something gained (a mutation). I had only really heard about the so-called "Orion beings". He only inferred their existence and called them the "Brothers", but he spoke to me of the catastrophe that led to his people's existence, and his "logical" processing of the need for rejoining because of "something" missing from his and the Brothers' DNA; something not based in the sequences of the biomolecule...something he called the "joined resonance".

I soon put two and two together and looked to him as one of two future species, in present time called *Homo sapiens sapiens*, and found humanity to be greater than the sum of its base pairs. Could adaptive radiation and new speciation account for the future "true" dichotomy, those same natures that we (now) as humans understand to be both parts of us as a single species? Didn't the base pairs and the preservation of favourable characteristics through fortuitous

gene mutations answer to the differences between the J-Rods and the "Brothers"? I asked him.

He replied (paraphrased as best as I can remember), "We are here in your present presence, asking for help." This statement struck me dumb and made me numb. If the answer was completely found in the material (handled through logical process and with technology) or completely spiritual (handled by the so-called "higher human self"), why not deal with it, my dear J-Rods or my dear "Brothers", yourselves, I reasoned, and he confirmed that we now possess something

unique, together with the necessary technological achievement level, expressing itself from the spiritual through the material and allowing us to contact a root genesis whence springs life on Earth. He confirmed that this "contact" is allowed only while we are a fused being, with both material and spiritual natures acting in both complementary and internally (and intensely, I may add) disagreeing ways, through the "joined resonance". In an effort to assist him with his particular neuropathy (as no cure or treatment then existed) and to possibly gain insight into the larger-scale problem of the fracturing of humanity, I requested to know what he knew of the genesis time.

The J-Rod rapidly approached me and grabbed me, knocking me to the grated flooring of the clean sphere. For the next 20–30 minutes (until my fellow scientists could drag me from the clean sphere—they didn't have secondary suits ready to immediately enter...and we are all told before entering of the possible things that can go wrong!), he flooded my mind with moving images (like a 3D movie), thoughts and dulled emotions. Some of the thoughts appeared more as metaphors than concretized reality. He showed me the process of genesis from the perspective of his interaction with the "Brothers". So, I guess you could say that it is some kind of extraterrestrial hearsay? :)

The images, I later found, were close to the ancient mandala of creation, the *Sri Yantra*. I saw a pearlescent lotus flower emerge from a near-spherical crystal matrix, in which resided an object that

My experience with the J-Rod and his willingness to suffer for his (and our) kind entranced me.

looked like the *Sri Yantra*. The *Sri Yantra* collapsed into itself through successive stages that looked like the platonic solids, and was carried along like a seed in a river of light to an oscillating drop of water. It entered the drop of water.

The drop of water divided into 12 parts by pinching itself off into 12 separate locations while each location stayed in contact with the seed. The seed divided (or "budded") itself into each of the 12 drops. I was aware enough to count the parts and see that each part's substance coalesced into what appeared as fully functioning prokaryote and eukaryote varieties. I witnessed one of the drops, with rapidly dividing cells, as it seemed to become covered in a dark red material. The material pushed itself away and I looked into the face of a man. He felt like he was there and I could swear I felt him breathe in.

Was this the dawn of humanity? I struggle with the potential and am torn in my soul, to this day, with the possible reality. I didn't see the destiny of the other drops, but since that time of experience my thoughts have been very fertile!

For a few years I plodded along with the Serial Endosymbiotic Theory of Eukaryote Origins (this is a cute way of saying that the so-called complex cells are composites of simpler cells that once danced the minuet of "I'll eat you, or you'll eat me", then almost mystically agreed to remain one within another, giving a competitive edge in survival), and then posited that a large virus may have seeded the garden called Earth. (Sound familiar?) The totipotent virus would necessarily possess a unique genetic package sufficient to be the forerunner of all Earth life. I covered this research, as I was still engaged with the Maji in other pursuits and had not informed them of the content of the message from the J-Rod, within the framework of an endosymbiotic research project that was originally called *Mission Genesis*, a staged logical next step from an endosymbiosis project with which I had been involved for a number of years.

(In that early research I was originally looking for ways to extend lengths of time for bacterial and algal samples to remain alive after they had been engulfed as food by protozoa. I was also conducting research into possible chemical signals being exchanged between the foodstuff and the hungry protozoa.)

During the early stages of *Mission Genesis*, I began looking into the data points and resultant statistics of that very early research project, which had become known as the FBM Project...or Fresh-Brackish-Marine...as salinity levels were employed as one of the variables (oxygen levels were another). During that project, I found points at which the hungry protozoa began to behave unusually—that is, "predictably"—in their retention period of either respiring foodstuffs (for example, a variety of bacteria) or photosynthesizing foodstuffs (for example, algae). I thought, "My God, have I found some kind of biochemical or behavioral trace to an original engulfment, which according to the endosymbiosis theory ultimately gave rise to mitochondria and plastids like chloroplasts?" Looking further into the data, my team observed clusters of data points in areas that could be easily mathematically related to the Golden Mean/*Phi* Ratio (an important ratio found in nature), the age of the Earth as currently determined by science, and the incorporation/retention rates of viral strands in prokaryotic and eukaryotic genomes.

I thought, "My God, have I found some kind of biochemical or behavioral trace to an original engulfment, which according to the endosymbiosis theory ultimately gave rise to mitochondria and plastids like chloroplasts?"

Mission Genesis was then moved forward to confirm the original FBM results and to further elucidate the data points. Further, I determined that it may be good to test these hungry protozoa in the presence of strata of differing ages. I placed this subset of the project in motion, just in case variance may be found amongst the behaviors of the hungry little protozoa, when they were in the presence of the minerals from rock of various ages. (Refer the data points relating to the Earth's age!)

Frenchman's Mountain [just east of Las Vegas] was determined a nice setting because of the availability of ages that range from 1.7 billion years (or so) before present to 20 million years (or so) before present. The research was started at the oldest area, the Vishnu Schist, after what amounted to a flip of the coin among my team members.

Soon after research was initiated and small samples were being harvested, an unusual event was captured on video during a test of the rock's electrical properties. As electrical current was applied to the rock, thin heat streams emanating from that area were observed on infrared. At that time, a heat target was also observed nearby. That area was destined to be the target location for the Staar-Flower Astrophysics Unit...and the so-called "Stargate" area that is responsive to electromagnetic thumps from the HAARP unit. The infrared streams interested me and I repeated the experiment using a great deal more electricity. This test (May 31, 2001) resulted in a heat liberation I termed a "flare".

Further tests were conducted using varying electrical pulse levels until the high limit was found that would be detected on infrared, but not visually. That level was employed during microscopic analysis of the rock's crystals, in the presence of strands of algae. (This ultimately led to the discovery of the so-called *Ganesh* particle.) At that point, the Maji asked me "just what the hell" I had in mind with all of this and where the idea came from. I seemed too prepared for the results and was the one that had requested the massive infrared study be concurrently conducted during my early tests at the Vishnu Schist. From their viewpoint I seemed to be working a process with one stated framework, but really was engaging in something quite different. Oops, I was caught! :)

A deal was struck, one that you will readily understand...quid pro quo, anyone? In exchange for knowledge of the "big" interaction with the J-Rod, the day I saw the images, I would be placed in the need-to-know about the Doctrine of the Convergent Timeline Paradox (DCTP), something I was barely allowed to know about...and only because I had told them about some of J-Rod's responses to my early questions. As I saw images, that day, of what looked like Inca City, Mars, but in its heyday...I wanted to know how all this figured together. The totality of my knowledge of the DCTP is known information within this community. I doubt I could add anything of interest (save one aspect to come that could possibly utilize the Lotus to assist the J-Rods and "Brothers"). The thought that the gods of Sumer and other places were the misinterpreted future humanity, viewed as magical instead of technological, strikes me deeply. What could they have been thinking, to tinker with the pulse of time and alter our genome and history?

I hope that my giving to you the association between what is now called Project *Lotus* and how I came upon the idea, satisfies that part of your request.

After the deal was struck, the research continued. I had long felt and related that should a huge virus have been the progenitor of life on Earth, its artifact would be found in the strata as well as within the living cells. The aforementioned data also leaned me in that direction. The Ganesh particles, under the correct electrical impulse levels, were observed being liberated from the crystalline rock.

It is currently believed that the Ganesh particle is a dense collection of electromagnetism or a collection of electromagnetic waves containing information and floating in a river of less-dense electromagnetism. As each particle (dense collection) passes a nearby living object, the image of the shape of that object appears to bend over and onto the particle, giving the false appearance that the particle is actually such a prosaic item. When it nears its destination (the method of that target determination not yet known), it hovers above the target cell, then chemically communicates with it by spraying what appears to be chemical substances upon the target cell's surface. It lands and instantly begins a rapid division process that ultimately results in a bridge of cells that connects the target cell to a nearby cell. The cells of the bridge stop their life sequences at particular points, offering some kind of frozen library whence the target algae cells could be given necessary information to change and help them.

A tube, with a needle-like penetrating end, enters the nucleus of the target cell and the cell at the other end of the bridge. This tube (for purposes of name assignment called the *Shiva Linga*) winds all of the way through the bridge between the two cells (the target cell and the one on the other end of the bridge). The tube can be observed entering the nuclei of all of the bridge cells between the target cell and the cell at the other end of the bridge. After a few minutes, the bridge detaches and disintegrates. Biochemistry of the surrounding medium revealed no traces of the substance that created the bridge. It is possible that the bridges are composed of some kind of condensed electromagnetism, taking the form of cells. Damaged cells were exposed to the particles. The actions of the Ganesh particles resulted in both partial and full restoration of normal cellular function.

It has been recently determined that Ganesh particles will attach to normal cells, use the penetrating tube to enter the cell's nucleus, but not form bridges to other cells. The results of the communication between the Ganesh particles and normal cells remains unknown. The cells of the crossbridges are as tenuous and fragile as clouds.

The restorative ability, ascribed to these particles, is being investigated as a possible treatment for the J-Rods' neuropathy. To date, the Ganesh particles have not been used *in vivo*, in J-Rods. Theorists are also working on the possible uses of the Lotus (rock emission component + Ganesh particle + cell interaction component) for everything from ecological remediation to how its use could reset certain aspects within the DCTP. I remain opposed to any application until much more is known about it.

The origin point of these particles has been determined. It's quartz. That is, the vibrating quartz crystal. I am under direct order that "I am not at liberty at this time to announce the form of quartz or how the crystal may accommodate the liberation of Ganesh particles"; that order also holds for known changes in the genome of the cells targeted by the Ganesh particles. There are implicit weaponization issues that cannot be broached in this medium. Albeit this whole paper will be set for some kind of classification, I am sure! :)

The base pairs, decoded from a worldwide detection of ultra-low-frequency emissions at 1.618033 Hz, appear to match certain base strings found in the target (injured) cells while they are being repaired through the actions of the Ganesh particle-created cells of the bridges. The strings, working in concert with resident viral components of the genome (what I will call the *Vishnu* part of the Lotus) appear to set in motion a rapid cascade of activation and deactivation gene switches that promote cellular repair. I am not allowed to speak more to that issue at this time.

By the way, if you are from Sweetness or working for, or in cooperation with that unit, I won't help you anyway.

In nearly every paper I have authored about the Lotus, I have given a warning that the Ganesh particle (what I believe could be the seed of life) is not to be toyed with. Further, that it may play in the higher scheme (the Tree of Life and the Fruit of the Tree of Life), found detailed in sacred literature throughout many cultures. My warnings have seemingly come true in a few instances.

Some attempts to use this project in manners that would immediately lead to an applied technology have resulted in bad things happening to those doing it. Reports of angelic beings, described in a manner very like how the Kerubim [*sic*] allegedly appear, have been detailed to me. A noted occurrence at the Shady Rest resulted in physical injury to certain personnel and massive property damage. Other reports, centering around the *Staar-Flower*

(originally called *Star Flower* by me...I guess they like their spelling better!) team at the Frenchman's Mountain, detailed severe physical and emotional injury to personnel, and the loss of personnel altogether. The alleged beings have red-coal-like eyes, multiple (four) faces, and are dangerous to those not heeding warnings to give distance. It remains unknown whether the Frenchman beings related to the Lotus or the alleged stargate. The beings reported having done damage at the Shady Rest were described in a way that could lead one to the belief that they are Kerubim, and such beings allegedly did

directly announce that the Lotus is related to the Seed and Fruit of the Tree of Life. I say: be careful! That's all I can say. I am trying to be careful and respectful.

We have enlisted the assistance of a very professional remote viewer who is attempting to help us clear a sacred path that doesn't upset those seemingly in spiritual charge of this phenomenon. Results of the remote viewing exercises have assisted us in seeing the phenomenon from a philosophical, spiritual, and sacred geometry perspective. Some may conclude that such application (even in such an advisory capacity) isn't doing science. That's fine with me. We will continue to use it and hold its results in the right frame of reference. As previously stated by me in other papers: the Cosmos, Life, preceded the tool of the whim of man, called the scientific method.

In conclusion, I want to thank you for the request, and say that I hope I have in some measure answered to it. I suppose when we arrived at our mutual destiny, we will know whether this project was of benefit. I seek a future not filled with the paranoia of such projects as the *Rain Dancer* and its needless introduction of an agent to the sum of humanity. In that vein, and with those things of this project to which I have just (in the last few hours) been made privy and am sadly not allowed to say: I see a future filled with the "Fruit of the Light of Loving-kindness" and "Healing through Togetherness".

**Yours very truly,
Dan Burisch**

I am under direct order that "I am not at liberty at this time to announce the form of quartz or how the crystal may accommodate the liberation of Ganesh particles"...



ANCIENT IRON PYRAMID STRUCTURE FOUND IN CHINA

On the south bank of a saltwater lake sits a metallic pyramid, said to be between 50 and 60 metres tall. In front of the structure lie three caves, each with triangular openings. The two smaller caves have collapsed, but the largest central cave is still passable. Inside, on the ground, lies a 40-centimetre length of pipe, spliced in half. Another red-brown pipe is sunk into the earth, only its tip visible above the ground.

Outside the cave, half-pipes, pieces of metal and strangely shaped stones are scattered along the southern bank of the lake. Some pipes run into the water. It is unknown what may lurk in the salty depths.

Should this site have been discovered on the outskirts of any of China's urban areas, the story would be about the perils of industrial pollution and its impact on the fragile environment. But this is at the foot of a mountain named Baigong Shan, in a remote corner of Qinghai province, 40 kilometres from the nearest city. Could this—as frenzied speculation in China's press would have it—be the remains of an alien launch pad rumoured to be between 30,000 and 20 million years old?

"The environment is harsh here," says Qin Jianwen, head of the local Delingha government publicity department. "There

are no residents, let alone modern industry—just a few migrant herdsmen to the north of the mountains."

"Unless you see [the relics] with your own eyes, you just wouldn't believe it," says *Lanzhou Morning News* journalist Ye Zhou, who was one of the first journalists on the scene. "It's hard to stick to scientific language when you talk about what's there. There are just all these iron pipes everywhere...it felt very creepy."

The site was first reported in 1998 by a group of US scientists on the trail of dinosaur fossils. The team alerted the local Delingha government to the presence of the structures, but the story went largely ignored until June 2002 when a Henan newspaper reported the findings of the site.

From their base in neighbouring Lanzhou, Ye and his colleagues decided to pick up the story and investigate for themselves, filing six reports detailing the expedition and their ongoing findings.

According to the Xinhua News Agency, results of preliminary rock and metal analysis show the pipes are 30% ferric oxide, with high content of silicon dioxide and calcium oxide; 8% of the sample's make-up was categorised "unidentifiable".

Engineer Liu Shaolin from Xitieshan Smelting Plant, who carried out the analysis, says the levels of silicon dioxide and calcium oxide point to the pipes having

been on the mountainside for a long time—although his estimate was significantly more recent than the US scientists' original theory that the iron was 300,000 years old. Liu found it was 5,000 years old: impressive, considering modern human smelting methods date back a mere 2,000 years.

"The results have made the site even more mysterious," says Qin.

Then again, counters Lanzhou journalist Ye, he would say that. "The Delingha government is billing it as tourist attraction," he says. "There's already a road sign pointing the way to the ET relics, and they've got it in their investment and tourism guides."

Preliminary reports completed, researchers from the Beijing UFO Research Organisation are now planning a more thorough expedition, due to depart in late July.

Qinghai project director Wei Yuguang, recently returned from the site, describes what he found as a wasteland. "The area is totally deserted," he says. "There is no living creature within 500 miles, although beyond that invisible boundary there is rich wildlife. There is no transportation, and the road is very difficult to follow: a car carrying Xinhua journalists ended up stuck in a ditch."

(Source: *City Weekend, China, July 18, 2002, <http://www.cityweekend.com.cn>*)

THE TWILIGHT ZONE

SUBMERGED TEMPLES FOUND OFF TAMIL NADU COAST

For centuries, local fishermen on the coast of Mahabalipuram in India have believed that a Great Flood consumed a city over 10,000 years ago in a single day. This story was recorded by British explorer J. Goldingham, who visited the area in 1798. The legend says there were six temples submerged beneath the water, with the seventh temple still standing on the shore. Author Graham Hancock thinks he's found them.

"I have long regarded Mahabalipuram, because of its flood myths and fishermen's sightings, as a very likely place in which discoveries of underwater structures could be made, and I proposed that a diving expedition should be undertaken there," says Hancock.

He instigated a diving expedition to the area in April 2002, working with the UK Scientific Exploration Society (SES) and India's National Institute of Oceanography.

The SES says: "A joint expedition of 25 divers from the Scientific Exploration Society and India's National Institute of Oceanography, led by Monty Halls and accompanied by Graham Hancock, has discovered an extensive area with a series of structures that clearly show man-made

attributes, at a depth of 16–23 feet offshore of Mahabalipuram in Tamil Nadu.

"The scale of the submerged ruins, covering several square miles and at distances of up to a mile from shore, ranks this as a major marine-archaeological discovery, as spectacular as the ruined cities submerged off Alexandria in Egypt."

The NIO says: "A team of underwater archaeologists from the National Institute of Oceanography (NIO) has successfully unearthed evidence of submerged structures off Mahabalipuram and established first-ever proof of the popular belief that the shore temple of Mahabalipuram is the remnant of a series of a total seven of such temples built that have been submerged in succession. The discovery was made during a joint underwater exploration with the Scientific Exploration Society, UK."

These investigations reveal stone masonry, remains of walls, scattered square and rectangular stone blocks, and a large platform with steps leading up to it. Most of the structures are badly damaged and scattered in a vast area, with barnacles and mussels growing on them. There are two locations, and the construction design and area are about the same at each. One possible dating for the ruins is between 1500 and 1200 BC.

The Pallava dynasty, which ruled the area during this time, constructed many similar temples. Yet archaeologists believe there was no culture in India 6,000 years ago capable of building anything that grand. Could such a culture have been lost during the Great Flood, which is legendary in many different cultures, all over the world?

Hancock says: "I have argued for many years that the world's flood myths deserve to be taken seriously—a view that most Western academics reject. But here in Mahabalipuram, we have proved the myths right and the academics wrong.

"Between 17,000 years ago and 7,000 years ago, at the end of the last Ice Age, terrible things happened to the world our ancestors lived in," Hancock says. "Great ice caps over northern Europe and north America melted down, huge floods ripped across the Earth, sea level rose by more than 325 feet, and about 15 million square miles of formerly habitable lands were swallowed up by the waves."

(Source: *Unknown Country website*, October 24, 2002, <http://www.unknowncountry.com>. See images at <http://www.grahamhancock.com/underworld/mahabalipuram1.php1>)

NASA IMAGES REVEAL 1,750,000-YEAR-OLD MAN-MADE BRIDGE

Space images taken by NASA reveal a mysterious ancient bridge in the Palk Strait between India and Sri Lanka. The recently discovered "bridge", currently named Adam's Bridge, is made of a chain of shoals approximately 30 kilometres long. According to media reports, the bridge's unique curvature and composition by age reveals that it is man-made.

Legends as well as archaeological studies reveal that the first signs of human inhabitants in Sri Lanka date back to a primitive age, about 1,750,000 years ago, and the bridge's age is almost equivalent.

This information is a crucial aspect for an insight into the mysterious legend of the *Ramayana*, which was supposed to have taken place in the *tredha yuga*, more than 1,700,000 years ago.

In this epic, there is mention of a bridge which was built between Rameshwaram (India) and the Sri Lankan coast under the supervision of a dynamic and invincible figure called Rama, who is supposed to be the incarnation of the Supreme.

(Source: *Hindustan Times*, Oct. 10, 2002, <http://www.rense.com/general30/nasa.htm>)



NASA image from <http://images.jsc.nasa.gov/iams/images/earth/STS059/lowres/20143034.jpg>

FORMER CLINTON AIDE CALLS FOR END TO UFO SECRECY

John Podesta, former Clinton White House Chief of Staff, recently spoke out in support of the effort to gain release of still-secret government UFO records.

"It is time for the government to declassify records that are more than 25 years old and to provide scientists with data that will assist in determining the real nature of this phenomenon."

Podesta was a key member of the Clinton administration, which went to great lengths to obtain the answer to the UFO mystery. President Clinton's science adviser Dr John Gibbons, for example, initiated an investigation by the US Air Force into the crash of an unknown object at Roswell, New Mexico. In 1993, Clinton's first CIA Director James Woolsey green-lighted a new CIA investigation into UFOs. Clinton himself asked his good friend Webster Hubbell to find out the truth about UFOs.

Hillary Clinton, also very interested in the UFO phenomenon, helped Laurance Rockefeller edit a letter to President Clinton on UFOs, and was briefed on the UFO subject by Rockefeller at the Rockefeller ranch during the President's 1995 vacation there.

The Podesta statement, announced at the National Press Club in Washington on Tuesday, October 22, was part of an initiative by the Sci-Fi Channel in support of a new effort to gain release of secret government records on unidentified aerial phenomena.

Besides offering up support for disclosure on UFOs, a new FOIA (Freedom of Information Act) initiative was announced, which included mention of the formation of the Coalition for Freedom of Information (CFI). The initiative is not setting out to prove the existence of aliens. Rather, the group wants to legitimise the scientific investigation of unexplained aerial phenomena.

Specifically, the CFI is pressing the Air Force for documents involving Project *Moon Dust* and Operation *Blue Fly*—clandestine operations reported to have existed decades ago to investigate UFOs and retrieve objects of unknown origins.

The CFI director, Ed Rollins, also works for Podesta's public relations firm, Podestamattoon, which is coordinating the new group at the behest of the Sci-Fi Channel. He said the initiative was a call for serious investigation, not a publicity

stunt for the cable network.

"The Sci-Fi Channel has had an interest in [UFOs] for some time. The difference here is that they are focusing attention on the serious, factual side of the issue, and that scientists have not had a chance to thoroughly examine it," Rollins said.

A Pentagon spokesperson could not be reached for comment.

(Sources: Press release by Grant Cameron, <http://www.presidentialufo.com>; CNN.com, October 22, 2002)

DID A UFO PREVENT EVEN WORSE CONSEQUENCES FROM CHERNOBYL DISASTER?

More than 16 years have passed since the disaster at the Chernobyl nuclear plant at 1.23 am on April 26, 1986.

Much has been written about the Chernobyl disaster, both in Russia and abroad. It seems that the physical nature of the tragedy has been determined and the people responsible for it identified.

The fourth power-generating unit was supposed to have been repaired. Yet, before shutting it down, the plant's administrators decided to perform several experiments. Steam delivery was cut to one of the turbogenerators in order to discover the period of time that electric power would still be generated due to the rotation of the rotor. The experiment was not well-organised.

Furthermore, there was another test conducted simultaneously on the study of

turbine vibration. They started decreasing the capacity of the generating unit at 1.00 am on April 25. The emergency cooling system of the reactor was shut down at 2.00 pm; this was supposed to stop the reactor.

However, the Kievenoergo energy company did not know anything about these tests. An energy control officer did not allow the plant's fourth generating unit to be stopped. These were the prerequisites of the tragedy. Many people are still suffering.

The explosion was very large, but luckily it was only a thermal blast. The fourth power-generating unit was basically destroyed by overheated steam. There was no nuclear explosion. Roughly 180 tons of enriched uranium were in the reactor. Had a large blast happened, half of Europe would not currently be depicted on any maps.

There are many theories to explain such luck. One of the theories is that there was help from a UFO. Some people say that when troublesome events started to occur, they saw a spaceship hovering above the fourth generating unit of the Chernobyl plant.

Eyewitnesses say that a UFO was there for six hours and that hundreds of people saw it. People started writing about it only two years after the catastrophe.

Of course, such information appeared only in magazines on ufology. As generally believed, serious people don't read such magazines and journals.

(Source: Pravda, September 16, 2002, <http://english.pravda.ru>)



REVIEWS



BOOKS

Reviewed by Ruth Parnell

BUSHWHACKED:

Inside Stories of True Conspiracy by Uri Dowbenko

Conspiracy Digest, USA, 2002

ISBN 0-9710042-1-8 (357pp tpb)

Price: US\$19.95 + US\$4 s&h (for o/s s&h check website); Euro25,90

Availability: **USA**—Conspiracy Digest, LLC, PO Box 43, Pray, Montana 59065, tel 1-866 317 1390 (toll free, USA/Can), email virtualagency@yahoo.com, website <http://www.conspiracydigest.com>; **Eur**—NEXUS Office, tel +31 (0)321 380558

For the title of his conspiracy compilation, writer Uri Dowbenko has extended the meaning of "bushwhacked" with a capital "B", encompassing the corruption endemic under successive US governments, several of them involving a Bush in high places.

For *Bushwhacked*, Dowbenko has collected a number of his essays and interviews which tell something of the sub-text within US government, business and society (some of these articles have been published in NEXUS). Among the investigations are HUD (Housing and Urban Development) frauds, kickbacks to the Internal Revenue Service chief, more Iran–Contra scandals, the Enron–Bush connection and high-level drug-running. Particularly disturbing (as ever) is the testimony from victims of the *Monarch* and *MK-Ultra* mind-control programs run by the CIA and other government agencies (I have to presume that the cover illustration featuring a naked, tortured woman relates to this context).

The second part is devoted to interviews with former insiders and whistleblowers like Rodney Stich, Al Martin, Malachi Martin (on the end of religion), William Gibson (of cybergrunge fame), remote viewer David Morehouse and former British intelligence operative John Coleman.

The final section on "Secret Knowledge" has a chapter on the "New (Reptilian) World Order", which runs the gamut from the Anunnaki of ancient Sumer to mind-control survivor Arizona Wilder's weird world populated by shapeshifting aliens with a lust for human sacrifice! Whatever we may think, Dowbenko includes these and other conspiratorial and paranoid subjects because they are the undercurrents of our modern times.

TUTANKHAMUN:

The Exodus Conspiracy by Andrew Collins and Chris Ogilvie-Herald

Virgin Books, UK, 2002

ISBN 1-85227-972-9 (338pp hc)

Price: NZ\$64.95; £20.00; Euro35,90; US\$29.95

Availability: **NZ/Europe**—NEXUS offices;

UK—Virgin Books, website

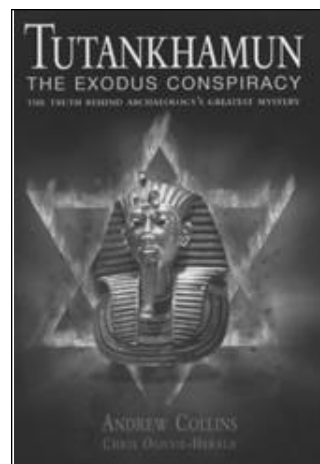
<http://www.virgin.com/books>; **USA**—Client Distribution Services, tel 800 343 4499, email orderentry@cds-books.com

On the jacket cover of this book, the golden mask of the Egyptian boy-king Tutankhamun is superimposed over a Star of David in flames. But how are these two powerful symbols—one Egyptian, the other Jewish—linked? Andrew Collins (*From the Ashes of Angels*) and Chris Ogilvie-Herald (co-author, *Giza: The Truth*) have teamed up

to explore some of the behind-the-scenes mysteries surrounding Howard Carter's opening of Tutankhamun's tomb in 1922 (exactly 80 years to the day, as I write!).

Apparently, among the artefacts found in the tomb were papyri which told the true story of the Exodus of the Israelites from Egypt. Had they been made public, they might have altered the course of history in terms of the establishment of the state of Israel, the authors propose. And though their existence remains unproven, these documents are also believed to put a different spin on the establishment of Judaism.

The authors posit that the ancient Trans-Jordan city of Petra is intrinsic to the foundation of the Jewish faith. The sacred Mount Sinai, whose location has been often disputed, they suggest may be the thousand-metre-high peak of Jebel al-Madhbah, the "High Place" and holy sanctuary of Petra. The twists and turns of their lines of enquiry make this a surprising discovery tour.





REVIEWS

POPULAR PARANOIA:

A *Steamshovel Press* Anthology edited by Kenn Thomas

Adventures Unlimited Press, USA, 2002
ISBN 1-931882-06-1 (320pp l/f tpb)
Price: A\$45.00; NZ\$49.00 + p&p; £17.50
inc. p&p; Euro 25,90; US\$19.95 + s&h
Availability: **Australia/NZ/UK/Europe**—
NEXUS offices; **USA**—Adventures
Unlimited, tel (815) 253 6390, website
<http://www.adventuresunlimitedpress.com>

It's hard to believe that six years have elapsed since we reviewed *Popular Alienation*, an anthology of the first 13 editions of the Missouri-based underground conspiracy zine, *Steamshovel Press*. That "all conspiracy, no theory" samizdat will turn 15 in 2003, which is some achievement. It certainly deserves its place in the annals of popular culture for the side-swiping iconoclastic perspectives it presents.

Much has happened since 1995, and some of the significant events are reflected in commentary in issues nos. 14 (Fall 1995) through 18 (2001). This new compilation, *Popular Paranoia*, reflects a rising tide of suspicion that's so much a part of the global conspiracy culture and is now entering the average Western psyche. It covers, admittedly with an American bent, "parapolitical" subjects as diverse as the Nation of Islam, the Oklahoma City bombing, the death of Diana, Princess of Wales, and the influence of "the Octopus". It also includes the last interviews with Ginsberg, Burroughs and "neuronaut" Leary. (It must be said, though, that the omission of a contents page doesn't make it easy for the reader.)

Steamshovel's Kenn Thomas is one of the few alternative news editors/publishers courageous enough to include a regular

"Saucer Section", touching on other-worldly matters at the risk of his own credibility, because he has an inkling of how far the tentacles of the Octopus spread—as readers familiar with his research would know.

TIME AND THE TECHNOSPHERE

by José Argüelles, PhD

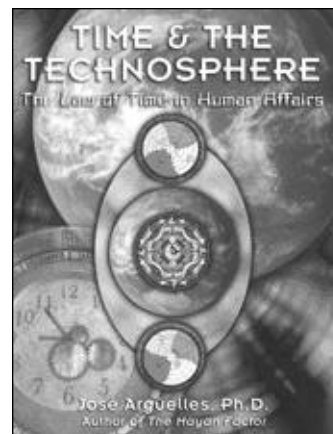
Inner Traditions, USA, 2002
ISBN 1-879181-99-1 (259pp tpb)
Price: A\$46.00; NZ\$59.95; £17.99;
Euro25,90; US\$20.00
Availability: **Australia**—Brumby Books, tel
(03) 9761 5535; **NZ**—NEXUS Office;
UK—Deep Books, tel 020 8693 0234;
Europe—NEXUS Office; **USA**—Inner
Traditions, tel (802) 767 3174,
<http://www.InnerTraditions.com>

Humanity has just about run out of time in the linear sense, argues Dr José Argüelles in this long-awaited sequel to his 1987 *The Mayan Factor*. In *Time and The Technosphere*, he suggests that the destruction of the two World Trade Center towers and part of the Pentagon on September 11, 2001, was the "Inevitable Event" described in the Quran that would result from Western civilisation's pursuit of materialism on a global scale and its disregard for natural forces and universal time cycles. Dr Argüelles is well known for his part in the Harmonic Convergence global peace meditation of August 16-17, 1987, and for his landmark research into Maya cosmology.

Here he heralds the dawning of a New Age of Time, if only we can overcome the death throes of the so-called technosphere—the 56-year cycle that began with the atomic bomb detonations in 1945 and ended, he believes, with the events of 9-11. Drawing on the work of Russian scientist Vernadsky

(1863–1945) in delineating the laws and principles of the biosphere—the physical envelope that surrounds Earth—Argüelles posits that the biosphere is developing a mental envelope, the noosphere, and that the technosphere, the artificial construct encompassing modern industrialised civilisation, is the necessary bubble that must burst before we can reclaim our connection with nature. But we must do this before July 26, 2004, he says, or we won't survive the 2012 galactic shift foreseen by the Maya.

Intrinsic to ensuring our survival is the ditching of the Gregorian calendar—an artificial construct that binds much of the world to a 12-month/60-minute time-scale—and the adoption of a 13-month/28-day lunar calendar. This resonates with the 13:20 frequency that the Maya identified as the key to synchronising with natural, cosmic time. Argüelles is so serious about this that he devotes much of his energy to the World Thirteen Moon Calendar Change Peace Movement. Paradigm-changing stuff!



REVIEWS



WHAT SHINTARO TAUGHT ME:

Zen and The Art of Success

by Ron Lee

The Corporate Ninja P/L, Australia, 2002
ISBN 0-646-41803-3 (245pp hc)

Price: A\$49.95 + \$A7.00 in Australia;
check website for overseas postage details

Availability: **Australia**—The Corporate
Ninja Pty Ltd, PO Box 699, Double Bay,
NSW 1360, tel (02) 9363 1599, website
<http://www.corporate-ninja.com.au>

Having been a fan of the Japanese TV series *The Samurai* years ago, I was intrigued to see this book from Australia's "Corporate Ninja", Ron Lee: *What Shintaro Taught Me*. Well, Shintaro the Samurai and his Iga Ninjas taught me a lot, too—and I'm pleased to say, so has Ron Lee. Subtitled "Zen and The Art of Success", the book may be targeted at the business market—like Musashi's *A Book of Five Rings* updated for today's corporate warrior who wants to work with the Dao of the Dow and the Zen of the Hang Seng—but it's relevant for anyone who wants to go with the flow of life.

Lee is a martial artist experienced in several codes, including Bushido and Aikido, as well as being a motivational speaker, stand-up comedian, occasional film actor and former financial planner. He has developed his own brand of East-meets-West physical exercises and mental disciplines that are practical and even playful. Lee is dedicated to helping people find their true purpose and passion and achieve their full potential. He encourages each of us to embrace "creative insecurity" and run with spontaneous change: by following your own true nature, you are following the way of nature.

Lee's book is highly readable as well as entertaining, sprinkled with healthy doses of

humour. In fact, Lee devotes a whole chapter to the power of humour. Other "powers" include action, balance, breath, coincidence, courage, giving, higher force, love, meditation, respect, self-image and wisdom. These gems of truth are presented with a beautiful simplicity that's full of depth.

ADDICTED TO WAR:

Why the US Can't Kick Militarism

by Joel Andreas

AK Press, USA, 2002 (revised)

ISBN 1-902593-57-9 (65pp l/f tpb)

Price: US\$8.00 + s&h; £6.95; Euro12,90

Availability: **USA**—AK Press, 674-A 23rd

St, Oakland, CA 94612-1163, tel (510)

208 1700, website <http://www.akpress.org>;

UK—AK Distribution, PO Box 12766,

Edinburgh, EH8 9YE, tel 0131 5555165,

email ak@akedin.demon.co.uk; **Europe**—

NEXUS Office, tel +31 (0)321 380558

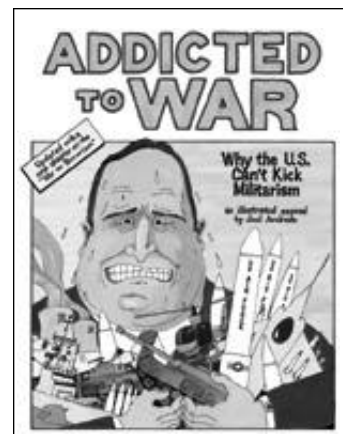
This slim but punchy volume of political cartoon stories proves that it's possible to get obvious truths across in a simple way but with maximum effectiveness. *Addicted to War* is a collection of satirical, witty cartoons and occasional photos with captions, commentary and quotes (referenced at the back of the book). It serves its purpose brilliantly by undressing the emperor—the US government, hand in hand with the military-industrial complex—and exposing the endemic lies, hypocrisy and corruption of a regime that is hell-bent on war.

Addicted to War was first published in 1993 to rave reviews from like-minded commentators, but author Joel Andreas, no doubt prompted by the events of September 11, 2001 and the immediate aftermath, has now updated his book with new cartoon

sequences and added a chapter on the Bush government's "War on Terrorism". The book strikes home how mad the world was before 9-11, but that it's even madder now.

Each chapter has a running storyline with historical perspective aplenty—introduced by one switched-on American mom who's telling her young son some home truths about the domestic and foreign policies of US governments since Independence. The short history of US military incursions (often conducted in the spirit of US corporate gain) puts recent war-posturing against Iraq into perspective.

Some new cartoons focus on VP Dick Cheney; one has him exiting his "secret bunker", warning that the "War on Terrorism" may never end—"At least not in our lifetime". Joel has seized upon Cheney's call for "endless war" as symptomatic of a dangerous addiction. He gives a context within which to understand why we haven't seen the last of this latest acceleration in warmongering. Scary material!





REVIEWS

OUT OF THE SHADOWS

by Dr David Clarke and Andy Roberts

Piatkus Books, UK, 2002

ISBN 0-7499-2290-7 (282pp hc)

Price: A\$59.95; NZ\$59.95; £17.99;

Euro31,90; C\$/n/a

Availability: **Australia**—Hodder Headline,

(02) 8248 0800 (avail. Jan 2003); **NZ**—

David Bateman P/L, tel 09) 415 7664;

UK—Piatkus, tel 020 7631 0710,

<http://www.piatkus.co.uk>; **Europe**—

NEXUS Office; **Canada**—Georgetown

Publications Inc., tel (905) 873 2750

Patient folklore and mystery investigators Dr David Clarke and Andy Roberts have been keeping tabs on UK government documents about the UFO phenomenon that are released every year under the government's 30-year rule. They've found papers that haven't seen the light of day since the latter years of World War II, but lament that many more are subject to much stricter time rules and remain classified. As confirmed by these documents and in interviews, pilots and crew members often encountered so-called "foo fighters" and "ghost rockets"—so many that the Royal Air Force at least had to record the sightings and debrief crews. So if they weren't German or Soviet secret craft or weapons, what were they?

The phenomenon continued and diversified after the war, and in 1947 the RAF had to scramble a squadron over East Anglia to try to intercept an "anomalous aircraft". By 1950, saucer stories were flying across the Atlantic and even members of the British aristocracy were taking the phenomenon seriously. It was in those early Cold War days, say Clarke and Roberts, that the Air Ministry, Admiralty, War Office and Ministry of Defence set up a Flying Saucer

Working Party. Yet the MoD stuck to its guns that UFOs were "of no defence significance", and a cloak of secrecy was pulled over matters ufological on both sides of the Atlantic (remember the UKUSA agreement?). Some classic UK cases are re-analysed and much new ground trod in this eye-opening exposé of decades of official cover-up. The authors leave it to readers to judge the extensive evidence on its merits.

THE SHADOW GOVERNMENT: 9-11 and State Terror

by Len Bracken

Adventures Unlimited Press, USA, 2002

ISBN 1-931882-05-3 (274pp tpb)

Price: A\$33.00; NZ\$43.00 + p&p; £15.50

inc. p&p; Euro20,90; US\$16.00 + s&h

Availability: **Australia/NZ/UK/Europe**—

NEXUS offices; **USA**—Adventures

Unlimited, tel (815) 253 6390, website

<http://www.adventuresunlimitedpress.com>

As events unfold in this ongoing "War on Terrorism", and with the Bush administration's sights seemingly set on Iraq (and its oil reserves) after its Afghanistan incursion; with personal freedoms increasingly subjugated for the sake of protection against terrorist threats, and with the existence of a US "shadow" government openly declared: surely people are waking up to the fact that all is not as it seems or as we've been told.

How much longer can we dismiss government failings as incompetence or coincidence and not as evidence of corruption or—dare it be said—conspiracy? Author Len Bracken (*The Arch Conspirator*; see 7/03) presents a "state terror" thesis in the context of key US foreign policy cover-ups in the last century or so and the events surrounding 9-11. He reminds us of the CIA's

complicity in the funding and training of al-Qa'ida and other fundamentalist groups—making us ask what part the CIA may have played in these recent terror attacks.

Time and time again, the public is deceived and terrorised while powerful government and corporate interests pursue geopolitical and economic wealth in what amounts to a lead-up to war, or war itself. And in response to these terror threats, governments around the world are upping the ante and adopting the most draconian legislations in their histories.

Bracken asks who the *real* terrorists are when the post-9-11 anthrax attacks in the US involved a strain sourced from a US government lab. Who was responsible for the 9-11 attacks or allowed them to be perpetrated? Who else stood to gain? His discussion taps links between Bush-Cheney oil interests and the bin Laden family as well as the Enron collapse. Beware the shadow government, he warns.



REVIEWS



THE HOLY LAND OF SCOTLAND: Jesus in Scotland & the Gospel of the Grail

by Barry Dunford

Sacred Connections, Scotland, UK, 2002
ISBN 0-9541873-0-X (300pp tpb)
Price: £13.50 + £2.50 p&p in UK, +
£3.50 to Europe, + £5.50 elsewhere;
US\$22.00; Euro23,90 from NEXUS Office
Availability: **UK**—Sacred Connections, 3
Invervar Cottages, Glenlyon, Perthshire
PH15 2NJ, email holyland@sacredconnec-
tion.ndo.co.uk, [http://www.sacredconnec-
tion.ndo.co.uk](http://www.sacredconnec-
tion.ndo.co.uk); **Europe**—NEXUS Office



Evidence for Joseph of Arimathea's hav-
ing visited the British Isles is strong, but
in *The Holy Land of Scotland* author/histori-
cal researcher Barry Dunford proposes an
even older connection between Caledonia
(now Scotland), particularly the Perthshire
region, and the Holy Land (Palestine/Israel).
He presents the case that the Hebrew and

Celtic/Druidic lines stemmed from a com-
mon Grail ancestry that goes back to Noah,
and that ancestors of Yeshua (Jesus) had a
history in Caledonia traceable to at least
1500 BC. Not only that, he suggests that
they migrated from Caledonia to Palestine
several generations before his birth.

But more surprises are in store. We've
heard stories that Jesus also travelled to the
British Isles and that the Celtic Christian
Church was established there in AD 37—
thus considerably pre-dating the Church of
Rome—but Dunford concludes that the first
"Christic" Church was established two cen-
turies *before* the birth of Christ. It was a
coming together of mystery traditions link-
ing the Druids with the Egyptians as well as
the Essenes and other monastic orders of the
Middle East. An understanding of the world
energy grid and how to tap into geomantic
power places was common to all these mys-
tery schools, Dunford explains.

This book would have stood on its own
without the chapters on the "anti-Grail"
(anti-Christ) global Zionist agenda, which
rely heavily on commentary from hard-core
conspiracy writers. But Dunford considers
this essential background for understanding
the broader historical perspective to today.

THE NEW JERUSALEM: Rebuilding London by Adrian Gilbert

Bantam Press/Transworld, UK, 2002
ISBN 0-593-046943 (290pp hc)
Price: A\$54.95; NZ\$64.95; £17.99;
Euro31,90; C\$44.95

Availability: **Australia/NZ/UK/Canada**—
Random House; **Europe**—NEXUS Office

The rebuilding of London following the
bombings of World War II was piece-

meal and lacking grand vision compared
with that which happened following the
Great Fire of London in 1666. Was it that a
purging on a vast scale—373 acres within
the City walls and 63 outside—was neces-
sary for the remnants of the dark, Puritan
days under Cromwell to be done away with
and a new, enlightened age to be born?

Waiting in the wings was a new movement
being shaped by the mystical and scientific
mindsets of a group of Freemasons,
Rosicrucians and Hermeticists. They went
on to found the Royal Society under the ban-
ner of King Charles II, but there was another
agenda afoot: London's inheritance of its
true position as the prophesied archetypal
New Jerusalem.

As understood by Adrian Gilbert (co-
author, *The Orion Mystery* and *The Mayan
Prophecies*, and author of *Magi: The Quest
for a Secret Tradition*), layers of a much
older London were uncovered after the fire.
He concludes that the vision of Christopher
Wren, chief architect on the project, encom-
passed sacred geometry principles. The
design and orientation of key churches such
as St Paul's Cathedral had relationships with
temple designs and sitings in Jerusalem and
showed the hand of the Knights Templars.
Roman influences from the site were meld-
ed, yet none from the earlier Trojan era.

To make sense of this New Jerusalem idea,
Gilbert introduces scenarios involving the
fate of the lost tribes of Israel, who escaped
from the Assyrians 2,700 years ago and
ended up in Britain, and the preservation of
a Christian Church that preceded the birth of
the Church of Rome. Gilbert digs up layers
of meaning hitherto undreamt of, and sets
the scene for a reading of history quite dif-
ferent from the mundane.



REVIEWS

CENSORED 2003:

The Top 25 Censored Stories

by Peter Phillips & Project Censored

Seven Stories Press, USA, 2002

ISBN 1-58322-515-3 (398pp tpb)

Price: £12.99; Euro22,90; US\$17.95;

C\$25.95

Availability: **UK**—Turnaround Publisher

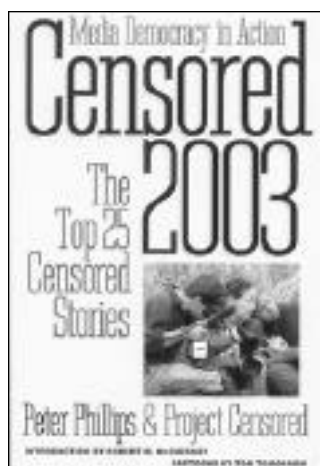
Services Ltd, tel 020 8829 3000; **Europe**—

NEXUS Office; **USA**—Seven Stories Press,

tel (212) 226 8760, website

<http://www.sevenstories.com>; **Canada**—

Hushion House, tel (416) 285 6100



Project Censored, set up in 1976, is a non-profit organisation managed through the Department of Sociology of the School of Social Sciences at Sonoma State University in California, USA. The project, which involves at least 200 students, staff and faculty members, consultants and judges, is "dedicated to the freedom of information through the United States".

Every year, Project Censored releases its rundown of the top 25 news stories (and runners-up) that were underreported in the corporate media in the previous 12 to 18 months (see our summary of the top stories this issue). The list is whittled down in a series of steps from several thousand stories. This compilation, published by Seven Stories Press in conjunction with Project Censored, is a must for news-watchers everywhere, but particularly in the US.

Apart from the extensive coverage including updates on the top 25 stories and runners-up for 2001/02, there are follow-ups on the "winning" stories of the previous year—lest we forget their importance. Several introductory pieces set the tone, deploring the fact that on an unprecedented level the corporate media are protecting their profits, ratings and interests over journalistic principles and their charter to keep the public informed. Adding weight is a chapter devoted to news and comment before and

beyond 9-11. Separate chapters from contributors cover "junk food news", power groups, rebuilding democracy with grass-roots news, media self-censorship, the top 10 media giants, and the truth about Afghan civilian casualties in the "war against terror". Cartoonist Tom Tomorrow provides reality checks throughout the book with his incisive "This Modern World" strips.

To top it all off, *Censored 2003* (a title with extended shelf life) contains an extensive list of independent media resources and activist organisations. Well done, team!

SILBURY DAWNING:

The Alien Visitor Gene Theory

by John Cowie

The Media Shack, UK, 2002

ISBN 1-903542-01-4 (180pp tpb)

Price: A\$19.00; £6.99 + £2.75 p&p in

UK; Euro12,90 (from NEXUS Office);

US\$10.00; C\$16.00

Availability: **Australia**—ebooks.com;

UK—The Media Shack, 12 Willow Drive,

Devizes, Wiltshire SN10 2SN, tel 01380

727949, website <http://www.silburydawning.com>;

<http://www.amazon.co.uk>;

Europe—NEXUS Office; **USA/Canada**—

Barnes & Noble, <http://www.bn.com>

Human civilisation could not have developed without the intervention of "Alien Visitors" in improving our genetics, says John Cowie in *Silbury Dawning*. There's evidence for an alien seeding—either by genetic engineering or interbreeding—occurring around 13,000 years ago in the post-Ice Age period, and he believes that this truth will be borne out with careful DNA analysis of ancient mummified bodies.

Cowie, a computer industry veteran who lives near Silbury Hill and other megalithic sites of Wiltshire, takes the perspective that the genetic changes coded into our make-up resulted in vast improvements in our capacities for intelligence and imagination. He even goes so far as to suggest that today's genetic engineers and computer scientists are merely activating a genetic memory software installed by these visitors long ago.

But how to define Cowie's stance? He's not a Darwinist, yet evolution is part of his model. Nor is he a Creationist or Intelligent Design adherent, but his alien intervention hypothesis presupposes a long, uneventful evolutionary process that was suddenly seeded with advanced genetics. He's less concerned with how life originated than with how human intelligence expanded so quickly and created great civilisations.

Cowie is not the first to propose the alien seeding hypothesis, but the idea is gaining wider credence in the public mind. Is this because it's part of our genetic destiny?

REVIEWS



GENESIS UNVEILED:

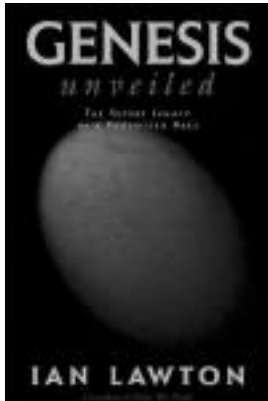
The Secret Legacy of a Forgotten Race by Ian Lawton

Self-published, UK, 2002

ISBN n/a (300pp PDF file on CD-ROM)

Price: £15 inc. p&p; US\$25.00 inc. s&h

Availability: **United Kingdom**—Ian Lawton, c/- Brighton Marina, Brighton, East Sussex BN2 5HA, England, website <http://www.ianlawton.com/cdord.htm>



The answer to how our ancestors survived a post-Ice Age catastrophe and went on to build settlements and civilisations is not because we were genetically seeded by alien races, but because advanced souls incarnated in human physical form and showed us the way. And looking at the progress of humanity, we can't discount the notion that this is an ongoing process.

But in *Genesis Unveiled*, Ian Lawton argues that the future of our modern culture, with its emphasis on materialism, is not assured. It's imperative that we resurrect our spiritual natures and incorporate the esoteric wisdom that has survived from pre-Flood times into a new-paradigm worldview—otherwise we are destined to repeat the mistakes of the past and initiate the end of civilisation as we know it. In explaining why he's arrived at this view, Lawton analyses ancient mythologies, arcane knowledge and shamanic traditions, anomalous artefacts and archaeological findings, the development of language and culture, the effects of natural catastrophes, and the new science that restates the knowledge of the ancients.

Lawton, who lives in Brighton, England, has devoted the past decade to researching ancient mysteries and cultures, and his first book, *Giza: The Truth* (with Chris Ogilvie-Herald; see 7/01) was well received. Yet, as we go to press, he's still to secure a publisher for this new book. So he's made the full manuscript available in PDF format on a CD (with two bonus short stories), which can be purchased from his website. It's well worth taking the trouble to download.

SEEDS OF DISTRUST:

The Story of a GE Cover-up by Nicky Hager

Craig Potton Publishing, New Zealand, 2002

ISBN 0-908802-92-7 (156pp tpb)

Price: NZ\$29.95 + NZ\$3.00 p&h in NZ; overseas orders add NZ\$10.00–\$15.00 (see website for details)

Availability: **New Zealand**—Craig Potton Publishing, PO Box 555, Nelson, tel +64 3548 9009, website <http://www.craigpotton.co.nz>

New Zealander Nicky Hager is the investigative journalist who lifted the lid on the *Echelon* satellite spy system with his book *Secret Power* (see 3/06), and exposed an anti-environmental campaign funded by the state logging company Timberlands in *Secrets and Lies*.

In his third book, *Seeds of Distrust*, Hager reveals government corruption and cover-ups over the illegal planting of sweet corn seed that had been contaminated by Novartis's (now Syngenta's) genetically engineered Bt "Jubilee" sweet corn.

On October 10, 2000, 5.6 tonnes (about 40 million seeds) arrived in New Zealand, and by early November half that supply had been planted in three locations over 178 hectares on both North and South islands. When a positive GE test result came back, the plants were already 30 cm high.

Hager has had access to leaked Cabinet papers and other documents (reprinted here) which show how the government conspired to manipulate media coverage and keep the public in the dark. He learned that instead of ordering the crop destroyed—as PM Helen Clark initially wanted done—the government bowed to industry pressure, allowing a 0.5% contamination threshold and permitting the illegal GE seedlings to be grown, harvested and processed into food products and the rest of the seeds sown.

The scandal, which Hager made public at his book launch during the 2002 election lead-up, was particularly serious because it coincided with the Royal Commission into Genetic Modification—and the government had agreed to a moratorium on GMO releases for the duration of the Commission. Some say that the timing of the announcement ultimately led to the government's loss of its majority in Parliament at the election.

Apart from being a slap in the face to supporters of a "clean, green" NZ, the government's cover-up of illegal GE plantings was a breach of public trust. For comparison, Hager looks at GE breaches in other parts of the world where governments have taken responsible measures to fix the problems. His book is an important exposé, and he was compelled to write it in the public interest.



REVIEWS

BOOKS

Reviewed by Ruth Parnell

LEGENDS OF THE STAR ANCESTORS

by Nancy Red Star

Bear & Co./Inner Traditions, USA, 2002

ISBN 1-879181-79-7 (259pp tpb)

Price: A\$46.95; NZ\$54.95; £15.99;

Euro22,90; US\$18.00

Availability: **Australia**—Brumby Books,

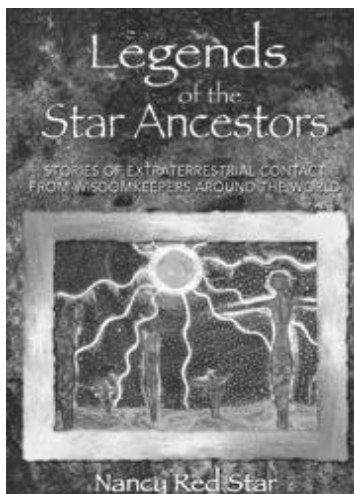
tel (03) 9761 5535; **NZ**—NEXUS Office;

UK—Deep Books, tel 020 8693 0234;

Europe—NEXUS Office; **USA**—Inner

Traditions, tel (802) 767 3174, website

<http://www.InnerTraditions.com>



Common to the Elder races and ancient cultures and religions of the planet are traditions that tell of the reality of "Star Ancestors" and how they seeded humanity. Each tradition has its wisdom-keepers and story-tellers, many of whom have been linking up in recent years to participate in a wider vision for the future of the planet and humankind. Aspects of that shared vision involve protecting the environment and all its life-forms, and realising that we are part of a much larger cosmic plan.

Santa Fe-based author and lecturer Nancy Red Star, the daughter of a Cherokee, has been playing her part in facilitating this grand global vision, which sees the stepping up of planetary vibration and the dawning of an enlightened new age. For *Legends of the Star Ancestors*, she has gathered contributions from teachers, healers, shamans and artists from a variety of traditions, cultures, religions and combinations thereof: Native American, African, Australian Aboriginal, Celtic, Cuban, Islamic, Japanese, Jewish, Mayan, Tibetan and more. All of them are working in their own way to protect their cultural and spiritual wisdom and share it

with the world. All of them have knowledge of the "Star People"—from the Pleiades, Sirius, Aldebaran, Venus or wherever—and some have had their own close encounters with UFOs and spirit beings.

One contributor, Daniel Salter, of Comanche and French heritage, is a former NRO and CIA operative who spills secrets about what the US government already knows about the extraterrestrial races.

The enticing stories and the beautiful colour artwork gracing these pages remind us not to limit our horizons.

ELECTRONIC VOICE PHENOMENON: The Cinderella Science

by Gerry Connelly

Domra Publications, UK, 2001

ISBN 0-9524417-4-8 (120pp tpb)

Price: £8.95 inc. p&p

Availability: **UK**—Domra Publications, 65 Constable Road, Corby, Northamptonshire NN18 0RT, tel/fax +44 (0)1536 201250, email domra@ukf.net

Instrumental transcommunication (ITC) has been known about since at least 1849, when anomalous words and geometric patterns were recorded on telegraphic devices. Nikola Tesla also picked up strange recordings via his instruments from the early days of his research with buried loop antennae. UK author and physicist Gerry Connelly has been researching the phenomenon since the 1970s, and in his book he gives a brief summary of its fascinating history.

Another aspect of ITC is the electronic voice phenomenon (EVP), where mysterious voices turn up on recording tape. The modern EVP era began in 1959 when Friedrich Jürgenson, a Ukrainian-born musician exiled in Sweden, found anomalous voices on his tapes, though spiritists with an electronics bent were experimenting with receiving "communications from the dead" before then. Though a "fringe" area of research, it has attracted the attention of not just spiritists but scientists, engineers, psychologists, parapsychologists and Catholic priests. And now with television and computers, the possibilities for receiving anomalous messages have expanded.

In his guide to understanding EVP and ITC, Connelly describes the types of voices and other sub-phenomena encountered in recordings and shows how the layperson can experiment with very simple recording equipment. He also speculates on how the words and sounds arrive on tape, in defiance of definitive scientific explanation, as well as on their sources. He considers several theories and "laws" covering multidimensional consciousness and cyberspace reality which may help explain the phenomenon.

REVIEWS



MUSIC

Reviewed by Richard Giles

PRESENT

by The Itch

New World Music, UK, 2002 (51mins)
Distributors: **Australia**—New World Music, tel (02) 9565 4522; **UK**—New World Music, tel 01986 781682, **USA**—New World Music, tel (303) 415 1040, <http://www.newworldmusic.com>

A highly accomplished guitarist, Robin Boulton (aka The Itch) gives this album his all with a skilfully produced piece of soulful guitar, some fiery passion, good solid rhythms, modern Indian/African fusion sounds and a great synthesiser backing. This is a well-rounded album of guitar delights to fill a club at night or for a lazy afternoon on the verandah. A delightful CD of fresh and evocative playing.

STARS OF AFRO-POP

by various artists

ARC Music Prodn, UK, 2001 (63mins)
Distributors: **UK**—Arc Music, tel 01342 328567; **USA**—Arc Music, website <http://www.arcmusic.co.uk>

The ARC Music label produces some masterful music from around the world. This CD is from their African series and includes all the greats. Youssou N'Dour, Ricardo Lemvo, Papa Wembe, Zap Mama, Toure Kunda, Manu Dibango and Esther Wahome are some of the renowned singers and musicians represented on this all-star collection. It's certain this album will get you up tripping, slipping and/or just dancing to the awesome sounds of the masters of modern Afro-music.

RASA IN CONCERT

by Rasa

Hearts of Space, USA, 2002 (60mins)
Distributors: **Aust**—MRA Entertainment, tel (07) 3849 6020; **USA**—Valley Entertainment, tel (212) 974 9400, website <http://www.hos.com>

Kim Waters and Hans Christian are a duo called Rasa, who sing and play devotional-style music. Rasa's music is based on Indian devotional songs from the *Vaisnava* tradition. With their special arrangements for traditional songs and instruments, Rasa has developed a sound that is deeply spiritual, respectful of the traditional values and accessible to a Western audience. Their music blends meditative, transcendental and ethereal qualities into elegant, contemporary music. This is a fine and inspiring album, recorded at several of their live concerts.

SYA

by Issa Bagayogo

Six Degrees, USA, 2002 (47mins)
Distributors: **Aust**—MRA Entertainment, tel (07) 3849 6020; **UK/USA**—Six Degrees Records, website <http://www.sixdegreesrecords.com>

Another celebrated singer from the galactic spectrum of Malians, Issa Bagayogo hails from the traditional musical style of Wassulu in the southwestern region of Mali. He plays the traditional lute, known as the *kamélé n'goni*, an instrument with six strings. His songs revolve around community themes, with stories of marriage, death, festivals and social get-togethers. He has managed to bring together the acoustic sound of his music and combine it with electronica, resulting in a gratifying blend of up-tempo West African groove.

CONGO TO CUBA

by various artists

Putumayo, USA, 2002 (59mins)
Distributors: **Aust**—MRA Entertainment, tel (07) 3849 6020, **UK**—Pinnacle Imports, tel 01689 870622; **USA**—Putumayo World Music, tel 1888 7888 8629, <http://www.putumayo.com>

Cuba and West Africa share a profound connection in their music via the African influences introduced during the slave-trade period, resulting in a fused blend of style and sound. Cuban music has had a deep influence on West African music since the 1930s, but a new wave in the 1950s–60s resulted in such styles as Congolese *soukous* and *rumba*. In the 1970s, African and Cuban musicians began playing and recording together in each other's lands. This compilation has Chico Alvarez (Cuba), Mama Sissoko (Guinea), Gnonnas Pedro (Benin), Balla Tounkara (Mali), Monte Adentro (Cuba), Pape Fall (Senegal) and many more. A hot celebration of Afro-Cuban!



Continued from page 18

fattened up and sold for slaughter. The meat is then exported to European and Asian markets for human consumption.

(Source: *The Animals' Agenda*, March/April 2001)

24: Wal-Mart Takes Union Busting to the State Level

Wal-Mart has been pouring a considerable amount of money into a political campaign supporting a law that will reduce the wages and benefits for workers in Oklahoma. Oklahomans voted on the "right-to-work" law in September 2001. The law bans labour contracts that require workers to pay union dues or representation fees. The law also makes it difficult for unions to negotiate solid contracts.

Wal-Mart hopes to use Oklahoma as a model for a renewed campaign to reduce the wages and benefits for workers nationwide. This campaign will inevitably undermine the ability of unions to organise effectively. The right-to-work law has union members angered and concerned, as expressed by a member of the International Brotherhood of Electrical Workers:

"Union members across the country should take note of Wal-Mart's support of measures like "right to work" before they spend any of their union wages at Wal-Mart stores."

Oklahoma rejected a right-to-work law in 1964, when Martin Luther King, Jr. came to campaign against the proposal. This time around, however, powerful right-wing interests combined with Wal-Mart to push the initiative. The *Daily Oklahoman* contributed advertising space and Governor Frank Keating and US Senator Don Nickles campaigned in support of passage.

(Source: *Madison Capital Times*, August 2001)

25: US Federal Government Bails Out Private Prisons

For close to a decade, the private prison industry was booming because state legislators thought they could be both tough on crime and fiscally conservative by contracting with private prisons. However, private prisons have been rife with more abuse and lawsuits than state-run prisons, leading to a decline in state-level support. By last year, not a single state solicited private contracts and many contracts were

rolled back or even rescinded as a result of inefficiency and abuses.

While most state correctional officials are aware of the problems, the federal government continues to expand contracts with the private prison industry. Private prison industry officials make significant campaign contributions and their lobbyists have spread their influence widely in Congress. High-ranking private prison company officials have served as directors of the Federal Bureau of Prisons (FBOP) under former Presidents Reagan and Bush.

(Sources: *The American Prospect*, September 10, 2001; *The Wall Street Journal*, November 6, 2001)

Editor's Note:

Our coverage of Project Censored's top 25 news stories for 2001–2002 is extracted and edited from *Censored 2003*, published by Seven Stories Press (see review this edition and visit the website <http://www.sevenstories.com>).

For additional background on these news stories, and to submit your pick of the news to the Project Censored team, visit their informative website, <http://www.projectcensored.org>.

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put onto a forming planet until it is sufficiently cooled to have abundant land and water. But once in place and established, their large size (relative to prokaryotes) can metabolise much more oxygen per unit. Together, the fully proliferated prokaryotes and eukaryotes can spew out enough oxygen to oxidise every bit of free iron *on* the Earth's crust and *in* its seas, and before long be lacing the atmosphere with it.

Sure enough, when the terraformers return in another 1.4 billion years they find Earth doing well, but the situation on Mars is unimproved: rust as far as the eye can see. (Mars is likely to have at least prokaryotic life, because there wouldn't have been enough oxygen in the surface water it once had—or in the permafrost it still has—to turn its entire surface into iron oxide.) Earth, however, is doing fine. Most of its free iron is locked up as rust, and oxygen levels in the atmosphere are measurably increasing. It's still too soon to think about depositing highly complex life, but that day is not far off now, measurable in tens of millions of years rather than in hundreds of millions. For the moment, Earth is ready

for its first load of multicellular life, and so it is deposited: the Ediacaran Fauna.

Though scientists today have no clear understanding of what the Ediacarans were or what their purpose may have been (because they don't exist today), it seems safe to assume they were even more prolific creators of oxygen than the eukaryotes.

If, indeed, terraformers are behind the development of life on Earth, nothing else makes sense. If, on the other hand, everything that happened here did so by nothing but blind chance and coincidence, it was the most amazing string of luck imaginable. Everything happened exactly when it needed to happen, exactly where it needed to happen, exactly how it needed to happen.

If that's not an outright miracle, I don't know what is.

MAKING BETTER SENSE

Assuming terraformers were/are responsible for seeding and developing life on Earth, we can further assume that by 550 million years ago at least the early oceans were sufficiently oxygenated to support genuinely complex life. That was delivered *en masse* during the otherwise inexplicable Cambrian Explosion, after which followed

the whole panoply of "higher" forms of life on Earth as we have come to know it. (The whys and wherefores of that process are, regrettably, beyond the scope of this essay, but there are answers that have as much apparent sense behind them as what has been outlined.)

During those 550 million years, five major and several minor extinction events occurred, after each of which a few million years would pass while the Earth stabilised with environments modified in some way by the catastrophes. Some pre-event life-forms would persist into the new environments, to be joined by new ark-loads delivered by the terraformers, who would analyse the situation on the healing planet and deliver species they knew would survive in the new environments and establish a balance with the life-forms already there (the Interventionist version of punctuated equilibrium).

We've already seen the difficulties Darwinists have with trying to explain the flow of life on Earth presented in the fossil record. That record *can* be explained by the currently accepted Darwinian paradigm, but the veneer of "scholarship" overlaying it is little different from the divine fiat of

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Creationists. And it *can* be explained by Intelligent Designers, who claim anything so bewilderingly complex couldn't possibly have been arrayed without the guidance of some superior, unifying intelligence (which they stop short of calling "God", because otherwise they are merely Creationists without cant).

Considering all of the above, we Interventionists believe the terraformer scenario explains the fossil record of life on Earth with more creativity, more accuracy and more logic than the others, and in the fullness of time will have a far greater probability of being proved correct. We don't bother trying to establish or even discuss who the terraformers are, or how they came to be, because both are irrelevant and unknowable until they choose to explain it to us. Besides, speculating about *their* origin detracts from the far more germane issue of trying to establish that our explanation of life's origin makes better sense than any other.

We will continue to be ignored by mainstream media simply because the idea of intelligent life existing outside Earth is so frightening to the majority of those bound to it. Among many reasons for fear,

the primary one might be our unfortunate habit of filtering everything beyond our immediate reality through our own perceptions. Thus, we attribute to others the same traits and characteristics we possess. Another bad habit appears when we discover new technology. Invariably our first thought is: "How can we use this to kill more of our enemies?" Collectively, we all have enemies we want to eliminate to be done with the problem they present. Like it or not, this is a dominant aspect of human nature.

Because we so consistently project onto others the darkest facets of our nature, we automatically assume—despite ET and Alf and other lovable depictions in our culture—that *real* aliens will want to harm us. Consequently, we avoid facing the possibility of their existence in every way we can. (Here I can mention the obstinate resistance I have personally found to serious consideration of the Starchild skull, which by all rights should have been eagerly and thoroughly examined three years ago.)

So Interventionism is ignored because it scrapes too close to UFOs, crop circles, alien abductions and every other subject that indicates we humans may, in the end,

be infinitesimally insignificant in the grand scheme of life in the universe. There is much more to say about it, of course, especially as it relates to human origins, but that has to wait until the second instalment of this essay.

For now, let the last word be that the last word on origins—of life and of humans—is a long, long way from being written.

But when it is, I strongly suspect it will be...*Intervention*.

About the Author:

Lloyd Pye, born in 1946 in Louisiana, USA, is a researcher, author, novelist and scriptwriter. His independent studies over more than three decades into all aspects of evolution have convinced him that humans did not evolve on Earth, or at least are the product of extraterrestrial intervention. His book, *Everything You Know Is Wrong - Book One: Human Origins*, can be ordered through website <http://www.iUniverse.com> or Barnes & Noble at <http://www.bn.com>. His article, "Evidence for Creation by Outside Intervention", was published in NEXUS 9/04. Part Two of his essay, "Darwinism: A Crumbling Theory", will be published next issue. Lloyd is scheduled to speak at the 2003 NEXUS Conference in Amsterdam next March. Visit Lloyd Pye's website at <http://www.lloydpye.com>.